SCOET *Standing Committee on Educational Technology*

A joint initiative of the Council of Chief Executive Officers of the Advanced Education Council of British Columbia and the Ministry of Advanced Education, Training and Technology

The 1991 Educational Technology Inventory

❖ B.C. Colleges & Institutes

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The 1991 Educational Technology Inventory

An Assessment of the Current Status at B.C. Colleges & Institutes

May 1991

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❖ May 1991

The Standing Committee on Educational Technology is funded by the Ministry of Advanced Education, Training and Technology.

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PREFACE

The Standing Committee on Educational Technology

Purpose

The Standing Committee on Educational Technology (***SCOET***) is a college and institute system-wide committee with a mandate to monitor and assess changes in educational technology, and to propose policy directions for the system as a whole.

Objectives

SCOET's intention is to foster an internationally competitive education system for British Columbians in light of the rapidly expanding role of educational technology within education systems worldwide.

The committee is collecting information about all relevant aspects of educational technology both from sources within our system and from national and international sources. This information is being used to develop strategic direction recommendations to the Council of Chief Executive Officers (**CCEO**) of the Advanced Education Council of British Columbia.

Reports

This document is one in a series of reports that the committee will be completing and distributing within the college and institute system. It is the product of one of the surveys that the committee has undertaken to assess the current status of a specific area of educational technology in our system.

The surveying process, while time consuming and work intensive, is considered the most effective way for the committee to acquire accurate and reliable information from which to base its recommendations. The committee owes great thanks to everyone assisting with the ongoing collection of this information.

ACKNOWLEDGMENTS

SCOET **was established in June 1990 under the direction of the Council of Chief Executive Officers (CCEO), and is funded by the Ministry of Advanced Education, Training and Technology.**

The Chairman acknowledges and extends his appreciation to the members of the committee for their contributions to this report, with a special acknowledgement to Wayne Welsh for coordinating this project.

The Chairman also thanks the Colleges & Institutes Technology in Education Committee (**CITEC**) for preparing this report with special thanks to Peter Fenrich, John Blackwell and Patrick O'Brien.

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TABLE OF CONTENTS

Executive Summary 1
Introduction 3
Summary of Results 4
Narration of Responses 7
Conclusion 14
Appendix A - Terms of Reference 15
Appendix B - Sample of Survey 19
Appendix C - Comments for Long Answer Questions 53
Appendix D - Listing of Optical Scanner Results 77
Appendix E - Expertise Database Report 79
Appendix F - Disk File Listing 89
Appendix G - Glossary 93

NOTE:
Appendix C and Appendix E contain references to projects involving educational technology as well as a list of the users of educational technology at each institution in the province. ***SCOET*** is committed to identifying these resources throughout the system and will require your ongoing support to maintain accurate and useful lists. The committee welcomes all comments about the lists and is eager to receive regular updates as these resources grow and develop.

EXECUTIVE SUMMARY

In February of 1991 the Standing Committee on Educational Technology (***SCOET***) contracted the British Columbia Instructional Computing Support Group (BCICSG)[1] to do an inventory of existing educational technology resources within the college and institute system of B.C. The inventory project was a response to the ongoing need within the system to develop and maintain leading edge technological resources.

This report is a presentation of the information collected from the inventory surveys. It is intended to provide the colleges and institutes, the Ministry of Advanced Education, Training and Technology and ***SCOET***, with information which can and should be considered when formulating technological development plans at all levels.

The focus of the inventory is primarily on instructional technologies. This includes all aspects of computer use, from operating systems to specific software applications such as word processing, spreadsheets, databases and desktop publishing. It includes more specific applications such as computer managed learning (CML), computer assisted instruction (CAI), and computer based training (CBT). Educational technology also encompasses the use of non-computer based resources such as video disk technologies, CD-ROM, audio and video conferencing and many others.

In collecting the information for this project, each institution was surveyed over a period of one month beginning in February 1991. The surveys were designed to ascertain both the level and degree of usage of computing and related technologies within the system; to document expertise and current projects within the system; and to gain an impression of where the colleges and institutes are headed in terms of their use of educational technology in the future.

Preliminary analysis of the survey data shows that all types and sizes of computing platforms are being used at the colleges and institutes. The applications in use system-wide are word processing, electronic mail, spreadsheets and databases. These application areas are the foundation for educational technology at most of the colleges and institutes.

The availability of resources and the internal processes required to purchase new equipment, (or upgrade and/or replace obsolete equipment) are the areas requiring the greatest amount of attention. The system seems to be maintaining a minimum standard which barely fulfills current needs, and does little to foster advanced technological initiatives, development and training.

This report represents the identification of existing resources which may be common at some or all institutions within the system. It includes printed reports from both the expertise and special projects databases[2], and establishes a base for information sharing between the colleges and

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[1] BCICSG is now the Colleges and Institutes Technology in Education Committee (CITEC).

[2] The special projects database is currently being compiled in an easily maintainable format.

institutes. The ongoing maintenance of the project and expertise databases will play a key role in improving communication between institutions to provide swift and accurate access to resources which are readily available within the system.

Finally, as this is the first report produced by the Standing Committee on Educational Technology, it is intentionally broad in its scope. As a reconnaissance survey, the results will support many of the committee's future projects. These in turn will help the committee draft recommendations to the Council of Chief Executive Officers for the system to sponsor definitive progress in the advancement of educational technology.

INTRODUCTION

In conducting this survey the research group sent packages of 15 surveys out to a member of BCICSG at each college and institute. This person was asked to distribute the surveys to secondary respondents within their institution who could provide average answers to questions appropriate to their setting. The returned surveys produced responses that the committee considers institutional averages.

The survey format included both multiple-choice and long-answer questions. The results of the multiple choice questions have been aggregated and listed along with a sample survey in Appendix B. Summary listings of the long-answer responses are contained in Appendix C. A listing of educational technology projects is included within Appendix C (currently in the form of responses to long answer questions one through five).

A database has been created with dBASE IV version 1.1 to store information on educational technology expertise within the system. Appendix E contains a draft report from this database. Appendix F contains a listing of all project files available on disk, through the ***SCOET*** office. Appendix G is a short glossary of terms.

A number points should be considered before objective analysis of this data can begin:

- while the surveys focused primarily on instructional technology, some of the responses may have come from individuals more familiar with management information systems as they apply to institutional administration;
- the surveying process was qualitative in nature rather than quantitative. A package of 15 surveys were sent to a primary respondent (a member of the BCICSG) at each college and institute, who was asked to distribute the surveys. Approximately 100 surveys were returned out of 300 sent;
- not all surveys were completed with equal enthusiasm (i.e. sections of the projects and the expertise databases are incomplete), therefore some responses may not reflect the realistic average;
- the responses were not weighted to account for differences in institutional size.

SUMMARY OF RESULTS

The following four sections outline the major findings of the educational technology inventory survey.

Regarding Computers

1. All institutions are using computers significantly for both administration and instruction. Nearly all administrators have computers available for use and between one-quarter and one-third of all instructors have computers in their offices. The priorities for acquisition of hardware are about equal for both groups at most sites. The surveys produced the following ratios for student to computer use:

Institutions	Students per computer
2	1 to 3
6	4 to 10
3	11 to 25
4	25 plus
5	no response

2. Mainframe, mini, and microcomputer platforms are being used. The trend for instructional use is almost exclusively towards microcomputers and local area networks while the larger administrative departments are continuing on mainframe and minicomputer platforms.
3. The primary microcomputer being used is the IBM-compatible and the trend is to continue in that direction, however new users often indicated a preference for Apple Macintosh computers.
4. Hardware and software support for users is not an issue of concern at the moment.
5. Electronic mail is the main use of computers for administrators while word processing is the main use for all other groups. These applications are widely available to users who do have access to computers.
6. Local Area Networks (LANs) are generally available for student use but are not available to the other user groups.
7. General availability of computing resources is a major problem, particularly for "high-end" equipment.
8. Course specific software is often unavailable or inadequate; many of the administrative systems that are in place are outdated or inadequate.

Regarding Educational Technology in General

9. About three-quarters of the respondents said that some form of educational technology is being applied to their field. Most agreed that educational technology tools are valuable; resources for implementation are often available (see #11).

10. A small number of multi-media applications and hardware platforms are appearing throughout the system and the trend is toward continued development and growth, however, this is still viewed as a "rare" delivery method compared to other computer and traditional methods.

11. Other forms of educational technology have very isolated applications within the system. NOTE: Each institution has specific resources for specific projects, but the general availability of either multi-media or other specialized labs for instruction, training or faculty learning is limited to one or two sites. In general, faculty report that there is little time, money, or incentive to learn about, use or develop applications with newer technology.

12. Most respondents indicated a high level of interest in local workshops or conferences on educational technology as it relates to their fields. They would like access to a facility for learning about the technology and its applications.

13. Most respondents feel that the increasing use of technology in secondary schools will impact the college/institute system severely. Some college respondents suggested that applicants will be more computer literate and expecting access to better technological facilities than the system can provide. Questions in this area generated the harshest comments of the entire survey.

Regarding Policy Towards Educational Technology

14. Three-quarters of the institutions have computing plans in place and feel that they are being followed.

15. Upgrading and replacing aging equipment is a major problem requiring specialized funding in most cases.

16. About one-half of the sites have computer ethics policies either in place or being developed. Nearly 80% are widely educating users about piracy and duplication issues.

17. Acquisition of hardware and software is an ongoing and serious problem for two reasons: resources are lacking, and the internal process for reviewing and approving individual requests is unsatisfactory at most institutions.

18. People within the system have very limited knowledge of activities going on at other institutions within the system. With the exception of members of specialized system-wide groups such as CCCC, BCCEC, CITEC, PIMA, etc., the research team felt that even knowledge about activities within a given institution is often limited to a small group. It would appear that there is no general policy to promote the use of educational technology.

Regarding Human Resources and Projects

19. The database of expertise in the system is included as Appendix E of this report . The research team suggests that this list be re-circulated to the institutions in order to collect missed data and maintain an accurate

listing. The list of projects (Appendix C, questions 1 to 5) should be treated similarly, as it also has data missing. Some colleges and institutes have a great number of both mature and newly developed projects while other sites have very few. It lists many traditional computer applications, CAI, CML, CAL, CBI applications, as well as many emerging multi-media projects.

The circulation of these lists would also serve another valuable purpose, namely the communication of educational technology activities that are currently being used and developed within the system.

The report parallels the structure of the survey in that it is divided into several major areas: administration, faculty, students, staff, general educational technology, and policy. What follows is a narration of the responses to the various sections. Note that a comparison of the first four areas is provided prior to the narration of the last three areas.

Section 1 - Administrators

◆ Hardware:

The use of computers in administration is increasing moderately at some institutions, quickly at others. Most use both mainframe (or mini) and microcomputer platforms.

Of the administrators who have mainframe or minicomputer terminal on their desks, about three quarters of them make use of it. Of the administrators who have a microcomputer on their desks, just over three quarters make use of it. Hardware that administrators need to use is "mostly" available in some cases, and "somewhat" available in others.

IBM-type platforms are heavily favoured for microcomputers and constitute the platform that administrators are most likely to adopt next.

Although training and support are generally available, almost one quarter reported that it was only "somewhat" available.

◆ Software:

Electronic mail is the application of computers most commonly used by administrators. Word processing and spreadsheets are tied for the second most common applications used. Report generation, presentation software and database applications are used minimally. Database applications and word processing rank an equal second as the next computer applications administrators are likely to learn.

Although a large percentage of the sample reported a wide spread of abilities in using various computer applications, administrators are most comfortable with word processing software.

Of the administrators who have electronic mail available almost two thirds use it. Administrators are generally comfortable using electronic mail software. Internal electronic mail is used more regularly than external mail.

Most administrators are unfamiliar with presentation and report generation software.

Over three quarters of the respondents use standardized software.

◆ Networks:

The use of LANs is either nonexistent or just beginning.

Section 2 - Instructors

◆ Hardware:

The use of computers in instruction is increasing at a slow to moderate rate. Most instructors use IBM microcomputers or clones. Half of the respondents use both mainframe/mini and microcomputer platforms.

Of the instructors who have a mainframe or minicomputer terminal on their desks, only about half actually use them. Of the instructors who have a microcomputer on their desks, about two thirds of them use it. Hardware that they need to use is considered "usually" or "somewhat" available.

Most respondents reported that an IBM type platform is the one they are likely to learn about or use next.

Training and support is considered either "usually" available or "somewhat" available. There is generally a wide spread in abilities regarding setting up and adapting hardware.

◆ Software:

Word processing is the most commonly used application for administrative purposes among instructors. Spreadsheets are the applications next most commonly used by instructors. Spreadsheet use is also growing the fastest.

Less than half of the respondents use standardized software. While there is a wide spread in terms of ability for all software, instructors are most comfortable using word processing software.

Of the instructors who have access to electronic mail only about half of them use it. Of those who use it most report a wide spread in terms of ability. Most instructors use the internal mail system available to them while some use both internal and external mail on a regular basis.

Most instructors are unfamiliar with presentation and report generation software.

◆ Networks:

LANs are generally either non-existent or just being implemented.

Section 3 - Staff

◆ Hardware:

The use of computers among staff is increasing at a moderate to quick rate. There are a variety of computing platforms used by staff but IBM type microcomputers are more common than any other. Most staff use both mainframe/mini and microcomputer platforms.

Of the staff who have a mainframe or minicomputer terminal on their desks, only half of them use it. Of the staff who have a microcomputer on their desks three quarters of them use it. They report that the hardware they need to use is either "readily" available or "usually" available.

While there is a wide spread in abilities, relatively few staff members are comfortable with setting up and adapting computer hardware to suit their needs.

The majority reported that an IBM type is the next platform they are likely to learn about or use. Half of the staff report that support is usually available.

◆ Software:

There is also a wide spread in abilities in terms of software use, however, staff are most comfortable using word processing software.

Staff are evenly split among word processing, spreadsheets, database applications and electronic mail as the applications they are next most likely to learn. Most state that support for setting up software is usually available.

Of the staff who have access to electronic mail, approximately two thirds use it. Most are either comfortable or novice level electronic mail users. Most use internal electronic mail on a regular basis while some use both internal and external electronic mail.

Over two thirds of the respondents use standardized software.

Most are unfamiliar with the use of presentation and report generation software.

◆ Networks:

LANs, generally, are either nonexistent or just being implemented.

Section 4 - Students

◆ Hardware:

Most respondents reported that student use of computers is increasing at a moderate to quick rate. Most students use both mainframe and microcomputer platforms.

IBM type platforms were favoured for both present day use and for future developments. Other platforms used are Sun Workstations, DEC mini-computers, Macintosh, Amiga and Atari microcomputers. Three quarters state that the hardware that they need to use is either readily avaliable or usually available. The next most likely platform reported is IBM microcomputers or clones. Other platforms to be used include Sun Workstations, AS-400's and networks.

The ratio of students to computers varies between institutions.

A wide variety of abilities was reported in terms of setting up and adapting computer hardware. Two thirds state that support for setting up software is either usually available or readily available.

◆ Software:

Word processing is currently the main use of computers, while spreadsheets are the next application students are most likely to learn. Of all software, students are most comfortable using word processors.

Almost half of the responding institutions made electronic mail available to students. One third of the students who have access to electronic mail use it. There is a wide spread in abilities in terms of electronic mail use. Most students use it for both external and internal mail delivery.

Students use a high percentage of standardized software.

Most are unfamiliar with the use of presentation and report generation software.

◆ Networks:

Student use of LANs varies widely.

Comparisons of Sections 1 to 4

1. All respondents make use of both mainframe and microcomputers, with administrators being the most likely to make use of both platforms.
2. The availability of needed hardware favours administrators while instructors have proportionally the least amount of necessary hardware.
3. Administrators have the highest percentage of mainframe/minicomputer terminals on their desks and use the terminals more than any other group.
4. Administrators and staff have approximately the same percentage of microcomputers on their desks while instructors have a lower percentage.
5. For those who have a microcomputer on their desks, staff have the lowest percentage of use.
6. All groups will be using IBM type microcomputers as their next platform and the use of Apple Macintosh computers is also increasing. Some instructors working in evolving areas indicated a preference for Apple Macintosh.
7. Support and training is strongest for administrators and weakest for instructors.
8. Electronic mail is the main use of computers for administrators while word processing is the main use for all other groups.
9. The next application for administrators is word processing, for instructors and students it is spreadsheets, while staff are equally divided between word processing, spreadsheet and database applications.
10. Local area networks are used most by students and least by instructors.
11. Support for setting up software appears to be available for all groups.
12. Software standardization is lowest among instructors and highest among students.
13. Staff are the most fluent users of word processing software while instructors are the least fluent.
14. Administrators are the most fluent users of spreadsheet software while the other groups tend to be novices.

15. All groups tend to be either unfamiliar or novices at using database application software.
16. Electronic mail is mostly available to administrators and least available to students.
17. Of those who have access to electronic mail, staff and administrators tend to use it more than instructors and students.
18. Administrators and staff are the most comfortable with using electronic mail and tend to use it both internally and externally.
19. All groups are relatively unfamiliar with presentation software.
20. All groups tend to be unfamiliar or novices with report generation software.
21. Instructors are the most capable with setting up and adapting computer hardware but still tend to be novices.

Section 5 - Educational Technology, Hardware, Software, Training

Two thirds of the responding institutions reported that they have hardware available for multimedia applications but that equipment and training are not necessarily readily available. On average respondents either "never" or "rarely" use or create CAI/multimedia applications for educational purposes. Incentives were either "rarely" or "never" available to encourage faculty to create CAL/multimedia materials.

Electronic conferencing is rarely used. Over half of the responding institutions have equipment available for audio teleconferencing but on average it is rarely used. Less than half have facilities for internal closed-circuit video distribution and on average it is also rarely used.

Few institutions have equipment for video conferencing over phone lines. Over half have access to satellite video reception. On average, satellite video for educational purposes is rarely used.

Two thirds have facilities for producing telecourses which are sometimes used for educational purposes. Audiographics equipment is generally not available. Almost half of the microcomputers are linked to mainframe or minicomputers.

Most reported that support is usually available for networking computers. Support for setting up specialized hardware is "somewhat" available. Electronic mail support is "usually" available.

The method of learning about educational technology varied widely but CAL and continuing education are rarely used as a means to learn. Three quarters of the respondents reported that educational technology is either "often" or "sometimes" applied in their field. Resources for implementing educational technology are either "often" or "sometimes" available for most of the respondents.

Almost three quarters of the respondents stated that educational technology is either "very" or "quite" valuable in their field. Opportunities

for updating knowledge in educational technology are reported as only sometimes available. More that half of the respondents often take advantage of conferences or workshops on the subject. The need for a facility for educational technology for faculty is stated to be high.

Section 6 - Policies

Three quarters of the responding institutions have a computing plan in place, half of which state that it is "mostly" adhered to. Administrative priorities are slightly stronger than instructional priorities. Half of the respondents have policies to provide hardware and software tools for curriculum related activities.

Over two thirds have a purchasing plan to help faculty buy computers. Half of the respondents are able to purchase hardware and software on campus, with repair and support facilities generally available.

Upgrade priorities are moderate to high for most of the respondents. Upgrading of aging equipment is mostly done when special funding is available.

Half of the respondents have a policy in place or are currently formulating one for dealing with computer ethics. Almost all have a general promotional effort in place to educate users about issues of piracy and duplication.

Two thirds of the respondents have a group which monitors technology changes and reports to a committee.

Section 7 - Long Answer Questions Summary

There is considerable variation in educational technology resources between all of the colleges and institutes, even at the departmental level. There are, however, a few trends worth noting.

Other than traditional uses of computers, multimedia (including CAI) applications are the major educational technology tools being used or contemplated. Many colleges and institutes have developed multimedia programs but release time, money, and training are still major obstacles. The software being used for multimedia varies widely but tends to be based on the IBM platform. Future trends of educational technology developing in most fields are also dominated by multimedia.

The biggest change expected in the high school curriculum which will affect the use of educational technology in the colleges/institutes is increased computer literacy. It is expected that the effects will range from affecting what is taught to how things will be taught. Some colleges reported that high schools have better microcomputer equipment than they have. Comments in this section were numerous and indicated many concerns.

Computer managed learning/testbanking tends to be strongest in trades training but there is no common hardware or software being used.

Some of the harshest comments reported relate to the unavailability of up-to-date hardware. More hardware, especially leading edge hardware, is needed. The major difference between what software is available and what is needed is that the present software is obsolete and not course specific.

Administrative systems are often reported as inadequate.

◆ Software:

Word Perfect is used at 13 out of 15 responding institutions. Microsoft Word and Microsoft Works are also fairly common. Word processing is the only software indicated as being typically standardized.

Lotus 123 is used at 12 out of 15 responding institutions. dBase III+ and/or dBase IV are used at 12 out of 15 respondent institutions for database applications and 4 out of 11 use them for report generation.

The EAN electronic mail system is used by 6 out of 14 responding institutions.

Harvard Graphics, used at 5 out of 11 institutions, is the most common presentation package.

For ordering software a wide variety of approvals are needed for both the funding and the specific package license. To ensure standardization, 9 out of 14 campuses have software purchases approved by a computer centre or committee. (Note that the comments conflict with other data which suggests that very little is done about software standardization.) Some faculty reported dissatisfaction with their internal acquisition process primarily because requested and purchased items often differ.

To prevent software piracy, networks are used, posters are displayed, labels are applied, and hard drives are monitored.

CONCLUSION

This project was initiated near the end of 1990 by ***SCOET*** and was contracted by the research team in January to conclude in mid-April. The time frame proved to be very short for the tasks of designing a survey, collecting data, analyzing it, and reporting on it. However, the project does provide a "snapshot" of the system that is up-to-date and fairly comprehensive.

There was some reluctance by many of the respondents to provide names of faculty, staff or administrators that had particular expertise in specific areas of educational technology at their institution because of the fear that they may be inundated with requests for information. The fact that such a fear exists in a public educational system is regrettable, but must be addressed. Also, the number of individual projects mentioned by respondents likely falls well short of all those involving the use of educational technology.

This report now identifies many projects, and may be the catalyst to promote further sharing of knowledge, ideas and techniques in the application of technology to education. Some of the projects in the system are mature and ongoing and as such, are more widely known, but the newer applications are particularly difficult to hear about.

The knowledge and applicability of technology to education is growing within the system of B.C. colleges and institutes. It is likely that the requests for future projects will outpace the ability of the system to provide resources. There seems to be little system-wide policy in place for the promotion of educational technology, increased communications and the sharing of project information.

System-wide policy directions would assist the colleges and institutes in developing their educational technology resources effectively and efficiently. ***SCOET*** considers the information in this report to be a clear indication that the B.C. colleges and institutes are not achieving their educational technology potential.

APPENDIX A - Terms of Reference

Educational Technology in the B.C. Colleges and Institutes

An Assessment of the Current Status

SCOET RESEARCH PROJECT

Terms of Reference

The Standing Committee on Educational Technology, a subcommittee of the Council of Chief Executive Officers of the colleges and institutes in British Columbia, requires an understanding of the depth and breadth of technology currently being used in the system for educational purposes as an aid for them to make recommendations on policy related to such technology.

This research project will report on the current status of the usage of educational technology in the system by surveying widely within the system to collect data on instructional uses of technology together with an overview of administrative uses. Many standard uses of computers and related technology should be documented, and should be summarized to give an indication of the levels of products, experiences and expertise currently in the system. As well, documentation on individual projects and initiatives should be included to provide a sense of new directions that the system is taking in educational technology. Finally, the report should ask for and summarize comments on issues related to the use of educational technology and faculty development in its use. Projects or research (or portions thereof) that are privately funded and not publicly accountable should not be included. Source data should be available in a DBASE III+ or DBASE IV (compatible) format.

Specifically, the project should include data and information in the following areas:

- current major, minor and evolving uses of computing technology by faculty and students for instruction; the report should categorize these uses including hardware and software platforms and the expertise of instructors;
- current uses of audio, video and related technologies for educational purposes, including such diverse applications as multi-media applications to video conferencing;
- current faculty, student, instructional and administrative uses of communications related technology including electronic messaging and conferencing;
- a brief overview of current administrative uses of computing and related technologies including hardware and software platforms and expertise of users;
- brief summaries of college/institute computing plans or technology-related action plans indicating priorities or directions;
- issues of concern related to the use of educational technology including the availability and appropriateness of opportunities in the system for faculty and other users development with regard to the use of the technology.

This research project is being funded by SCOET, and all data and reports will become the exclusive property of SCOET; it is the intention to make the findings available to the system and to allow authorized use of the data within the system as well.

A progress report will be required for the February 8th meeting of SCOET and the final report and project will be concluded by April 15, 1991.

APPENDIX B - SAMPLE OF SURVEY

Section 1 - ADMINISTRATORS

1) **These questions pertain to**
   a) Section 1 - Administrators (100%)
   b) Section 2 - Instructors
   c) Section 3 - Staff
   d) Section 4 - Students
   e) Section 5 - Educational technology, hardware, software, training ...
   f) Section 6 - Policies

2) **The use of computers in administration is**
   a) increasing quickly (38%)
   b) increasing moderately (54%)
   c) increasing slowly (8%)
   d) not increasing (0%)

Comments:

All have access.
All use computers for electronic mail - slow increase in other uses.

3) **Administrators use**
   a) both a mainframe/minicomputer and microcomputer (92%)
   b) only a microcomputer
(8%)
   c) only a mainframe/minicomputer
(0%)
   d) neither mainframe/minicomputer nor microcomputer (0%)

Comments:

All microcomputers networked to mainframe for Email but adminstrators use packages such as works, word etc.

4) **Microcomputer administrative uses are on the following platform(s)**
   a) mainly Apple (0%)
   b) mainly IBM or clone (85%)
   c) both Apple and IBM or clone equally (15%)
   d) other (please specify) (0%)
   e) none of the above (0%)

5) **The computer hardware that administrators need to use is**
   a) readily available (39%)
   b) usually available (46%)
   c) somewhat available (15%)
   d) not available (0%)

6) **The percentage of administrators with a mainframe/minicomputer terminal on their desk is**
   a) 100% (8%)
   b) 75% - 99% (23%)
   c) 50% - 74% (8%)
   d) 25% - 49% (15%)
   e) 1% - 24% (38%)

f) 0% (8%)

7) The percentage of administrators who use the mainframe/minicomputer terminal on their desk is

a) 100% (38%)
b) 75% - 99% (30%)
c) 50% - 74% (8%)
d) 25% - 49% (8%)
e) 1% - 24% (8%)
f) 0% (8%)

8) The percentage of administrators with a microcomputer on their desk is

a) 100% (8%)
b) 75% - 99% (39%)
c) 50% - 74% (15%)
d) 25% - 49% (23%)
e) 1% - 24% (15%)
f) 0% (0%)

9) The percentage of administrators who use the microcomputer on their desk is

a) 100% (30%)
b) 75% - 99% (46%)
c) 50% - 74% (8%)
d) 25% - 49% (8%)
e) 1% - 24% (8%)
f) 0% (0%)

10) The next computer platform administrators will likely learn about or use is

a) IBM microcomputers or clone (45%)
b) Apple microcomputers (16%)
c) IBM mainframe or minicomputer (7%)
d) DEC mainframe (0%)
e) other (please specify) (16%)
No response (16%)

Comments:

Networks.
A, B, and C.

11) Support and training on hardware for administrators is

a) readily available (38%)
b) usually available (38%)
c) somewhat available (24%)
d) not available (0%)

Comments:

Open learning materials.

12) Administrators mainly use computers for

a) word processing (16%)
b) spreadsheets (16%)
c) database applications (0%)

d) electronic mail	(37%)
e) presentations	(0%)
f) report generation	(8%)
No response	(23%)

Comments:

All but E.
All but C.
Mixture.

13) The next thing administrators are likely to learn to do with computers is

a) word processing	(23%)
b) spreadsheets	(8%)
c) database applications	(23%)
d) electronic mail	(8%)
e) presentations	(8%)
f) report generation	(0%)
No response	(30%)

14) The use of local area networks in administrator computers is

a) significant	(15%)
b) moderate	(7%)
c) starting	(39%)
d) nonexistent	(39%)

15) Support for setting up computer software for administrators is

a) readily available	(38%)
b) usually available	(54%)
c) somewhat available	(8%)
d) not available	(0%)

16) Within the college/institute, the computer software administrators use is

a) standardized	(77%)
b) not standardized	(23%)

17) With word processing software, administrators are

a) fluent	(0%)
b) comfortable	(54%)
c) novices	(8%)
d) unfamiliar	(0%)
e) widely spread in terms of ability	(38%)

18) With spreadsheet software, administrators are

a) fluent	(0%)
b) comfortable	(38%)
c) novices	(24%)
d) unfamiliar	(0%)
e) widely spread in terms of ability	(38%)

19) With database application software, administrators are

a) fluent	(0%)
b) comfortable	(0%)

c) novices (31%)
d) unfamiliar (23%)
e) widely spread in terms of ability (46%)

20) Is electronic mail available to administrators?

a) yes (77%)
b) no (23%)

21) The percentage of administrators with available electronic mail who use it is

a) 100% (23%)
b) 75% - 99% (23%)
c) 50% - 74% (15%)
d) 25% - 49% (15%)
e) 1% - 24% (15%)
f) 0% (9%)

22) With electronic mail software, administrators are

a) fluent (15%)
b) comfortable (31%)
c) novices (15%)
d) unfamiliar (15%)
e) widely spread in terms of ability (24%)

23) Administrators use electronic mail

a) internally only (8%)
b) externally only (15%)
c) mainly internally but some externally (69%)
d) mainly externally but some internally (0%)
e) none of the above (8%)

24) Administrators use electronic mail

a) daily (39%)
b) weekly (39%)
c) monthly (0%)
d) none of the above (14%)
No response (8%)

Comments:

Random.
Wide range.

25) With presentation software, administrators are

a) fluent (0%)
b) comfortable (0%)
c) novices (0%)
d) unfamiliar (62%)
e) widely spread in terms of ability (38%)

26) With report generating software, administrators are

a) fluent (0%)
b) comfortable (0%)
c) novices (15%)

d) unfamiliar (46%)
e) widely spread in terms of ability (39%)

Section 2 - INSTRUCTORS

1) **These questions pertain to**
a) Section 1 - Administrators
b) Section 2 - Instructors (100%)
c) Section 3 - Staff
d) Section 4 - Students
e) Section 5 - Educational technology, hardware, software, training ...
f) Section 6 - Policies

2) **The use of computers for instructors is**
a) increasing quickly (6%)
b) increasing moderately (56%)
c) increasing slowly (38%)
d) not increasing (0%)

Comments:
Slowly there are traditional attitudes in an art school.
Some resistance.

3) **Instructors mainly use the following computer platform(s)**
a) IBM microcomputers or clone (82%)
b) Apple microcomputers (6%)
c) IBM mainframe or minicomputer (0%)
d) DEC mainframe (0%)
e) other (please specify) (6%)
f) no use (0%)
No response (6%)

Comments:
Amiga and Atari.
Tutors provide their own equipment.

4) **Instructors use**
a) both a mainframe/minicomputer and microcomputer (56%)
b) only a microcomputer (44%)
c) only a mainframe/minicomputer (0%)
d) neither mainframe/minicomputer or microcomputer (0%)

Comments:
Mostly microcomputers but varied.
Computer systems instructors use minicomputers otherwise most all usage is microcomputers.
Mostly microcomputer but the mainframe is used for Email.

5) **The computer hardware that instructors need to use is**
a) readily available (0%)
b) usually available (50%)
c) somewhat available (44%)

d) not available (6%)

Comments:

The college does not want to provide it.
Hardware is there but there is little support.

6) The percentage of instructors with a mainframe/minicomputer terminal on their desk is

a) 100% (0%)
b) 75% - 99% (6%)
c) 50% - 74% (12%)
d) 25% - 49% (6%)
e) 1% - 24% (44%)
f) 0% (32%)

Comments:

Usually shared between 2 or 3.

7) The percentage of instructors who use the mainframe/minicomputer terminal on their desk is

a) 100% (12%)
b) 75% - 99% (23%)
c) 50% - 74% (12%)
d) 25% - 49% (6%)
e) 1% - 24% (12%)
f) 0% (35%)

8) The percentage of instructors with a microcomputer on their desk is

a) 100% (0%)
b) 75% - 99% (0%)
c) 50% - 74% (13%)
d) 25% - 49% (31%)
e) 1% - 24% (56%)
f) 0% (0%)

Comments:

Microcomputers are shared and they access the mainframe.

9) The percentage of instructors who use the microcomputer on their desk is

a) 100% (37%)
b) 75% - 99% (13%)
c) 50% - 74% (19%)
d) 25% - 49% (6%)
e) 1% - 24% (25%)
f) 0% (0%)

10) With setting up and adapting computer hardware, instructors are

a) fluent (0%)
b) comfortable (19%)
c) novices (19%)
d) unfamiliar (6%)
e) widely spread in terms of ability (50%)

No response (6%)

Comments:

Most novices but varied abilities. (3 comments.)
Both A and D.

11) The next computer platform instructors will likely learn about or use is

a) IBM microcomputers or clone (63%)
b) Apple microcomputers (19%)
c) IBM mainframe or minicomputer (0%)
d) DEC mainframe (6%)
e) other (please specify) (6%)
No response (6%)

Comments:

More will learn the IBM.
Sun workstations.
Standardized on IBM only.
Mostly Macintoshes around.
Some Unix.

12) Support and training on hardware for instructors is

a) readily available (19%)
b) usually available (25%)
c) somewhat available (37%)
d) not available (19%)

Comments:

Generally lacking.
Courses are available but more support is needed.
Some is done via instruction but timing is difficult.

13) Administratively, instructors mainly use computers for

a) word processing (69%)
b) spreadsheets (13%)
c) database applications (0%)
d) electronic mail (6%)
e) presentations (6%)
f) report generation (0%)
No response (6%)

14) Administratively, the next thing instructors are likely to learn to do with computers is

a) word processing (13%)
b) spreadsheets (44%)
c) database applications (19%)
d) electronic mail (6%)
e) presentations (12%)
f) report generation (0%)
No response (6%)

15) The use of local area networks for instructor computers is

a) significant	(6%)
b) moderate	(6%)
c) starting	(25%)
d) nonexistent	(63%)

Comments:

Waiting until new facilities in 1993.

16) Support for setting up computer software for instructors is

a) readily available	(25%)
b) usually available	(44%)
c) somewhat available	(19%)
d) not available	(12%)

Comments:

Timing between instructor and support staff is difficult.

17) Within the college/institute, the computer software instructors use is

a) standardized	(44%)
b) not standardized	(56%)

Comments:

Not standardized but there are a few very popular packages.

18) With word processing software, instructors are

a) fluent	(0%)
b) comfortable	(44%)
c) novices	(0%)
d) unfamiliar	(0%)
e) widely spread in terms of ability	(44%)
No response	(12%)

Comments:

Mostly comfortable but varied.

19) With spreadsheet software, instructors are

a) fluent	(0%)
b) comfortable	(19%)
c) novices	(19%)
d) unfamiliar	(12%)
e) widely spread in terms of ability	(44%)
No response	(6%)

Comments:

Widely spread but the average is novices.

20) With database application software, instructors are

a) fluent	(0%)
b) comfortable	(0%)
c) novices	(25%)
d) unfamiliar	(25%)

e) widely spread in terms of ability	(44%)
No response	(6%)

Comments:

Widely spread but the average is unfamiliar.

21) Is electronic mail available to instructors?

a) yes	(56%)
b) no	(38%)
No response	(6%)

Comments:

Not available on their desks.
Only to some instructors. (4 comments.)

22) The percentage of instructors with available electronic mail who use it is

a) 100%	(13%)
b) 75% - 99%	(13%)
c) 50% - 74%	(13%)
d) 25% - 49%	(24%)
e) 1% - 24%	(18%)
f) 0%	(13%)
No response	(6%)

23) With electronic mail software, instructors are

a) fluent	(13%)
b) comfortable	(19%)
c) novices	(6%)
d) unfamiliar	(25%)
e) widely spread in terms of ability	(31%)
No response	(6%)

Comments:

Widely spread but most are unfamiliar.
Small minority are fluent.

24) Instructors use electronic mail

a) internally only	(6%)
b) externally only	(6%)
c) mainly internally but some externally	(44%)
d) mainly externally but some internally	(18%)
e) none of the above	(13%)
No response	(13%)

25) Instructors use electronic mail

a) daily	(31%)
b) weekly	(25%)
c) monthly	(6%)
d) none of the above	(13%)
No response	(19%)
Invalid response	(6%)

Comments:

Varied.
A few daily, the rest monthly.
A wide range.

26) With presentation software, instructors are

a) fluent	(0%)
b) comfortable	(0%)
c) novices	(12%)
d) unfamiliar	(44%)
e) widely spread in terms of ability	(38%)
No response	(6%)

27) With report generating software, instructors are

a) fluent	(0%)
b) comfortable	(0%)
c) novices	(6%)
d) unfamiliar	(56%)
e) widely spread in terms of ability	(38%)

Comments:

Not used for work.

Section 3 - STAFF (All non-managerial, non-teaching personnel)

1) These questions pertain to

a) Section 1 - Administrators	
b) Section 2 - Instructors	
c) Section 3 - Staff	(100%)
d) Section 4 - Students	
e) Section 5 - Educational technology, hardware, software, training ...	
f) Section 6 - Policies	

2) The use of computers for staff is

a) increasing quickly	(56%)
b) increasing moderately	(31%)
c) increasing slowly	(13%)
d) not increasing	(0%)

Comments:

Use is increasing faster than training.

3) Staff mainly use the following computer platform

a) IBM microcomputers or clone	(38%)
b) Apple microcomputers	(0%)
c) IBM mainframe or minicomputer	(12%)
d) DEC mainframe	(19%)
e) other (please specify)	(25%)
f) no use	(0%)
No response	(6%)

Comments:

Varies with department.
Some use the "Prime" minicomputer.
Balanced mix.
IBM connected to a DEC computer.

4) **Staff use**

a) both a mainframe/minicomputer and microcomputer	(69%)
b) only a microcomputer	(19%)
c) only a mainframe/minicomputer	(12%)
d) neither mainframe/minicomputer or microcomputer	(0%)

Comments:

Many microcomputers have mainframe emulation.
Some use the "Prime" minicomputer.

5) **The computer hardware that staff need to use is**

a) readily available	(19%)
b) usually available	(69%)
c) somewhat available	(12%)
d) not available	(0%)

Comments:

Access to laser printers and scanners is limited.

6) **The percentage of staff with a mainframe/minicomputer terminal on their desk is**

a) 100%	(6%)
b) 75% - 99%	(19%)
c) 50% - 74%	(6%)
d) 25% - 49%	(19%)
e) 1% - 24%	(31%)
f) 0%	(19%)

Comments:

Only if access is required.

7) **The percentage of staff who use the mainframe/minicomputer terminal on their desk is**

a) 100%	(19%)
b) 75% - 99%	(25%)
c) 50% - 74%	(6%)
d) 25% - 49%	(6%)
e) 1% - 24%	(25%)
f) 0%	(19%)

8) **The percentage of staff with a microcomputer on their desk is**

a) 100%	(25%)
b) 75% - 99%	(12%)
c) 50% - 74%	(32%)
d) 25% - 49%	(12%)
e) 1% - 24%	(19%)
f) 0%	(0%)

Comments:

Especially secretarial staff.

9) The percentage of staff who use the microcomputer on their desk is

a) 100%	(31%)
b) 75% - 99%	(31%)
c) 50% - 74%	(26%)
d) 25% - 49%	(6%)
e) 1% - 24%	(6%)
f) 0%	(0%)

10) With setting up and adapting computer hardware, staff are

a) fluent	(0%)
b) comfortable	(6%)
c) novices	(25%)
d) unfamiliar	(31%)
e) widely spread in terms of ability	(38%)

Comments:

Mostly unfamiliar except for support staff.
There is a special department for it.

11) The next computer platform staff will likely learn about or use is

a) IBM microcomputers or clone	(37%)
b) Apple microcomputers	(13%)
c) IBM mainframe or minicomputer	(24%)
d) DEC mainframe	(0%)
e) other (please specify)	(13%)
No response	(13%)

Comments:

Not planned to replace the Macintosh.
Use whatever hardware they have.
PC LANs.

12) Support and training on hardware for staff is

a) readily available	(25%)
b) usually available	(25%)
c) somewhat available	(44%)
d) not available	(6%)

Comments:

Level of training is frequently inadequate.
Training is usually done on their own time.
Only software training is provided.

13) Staff mainly use computers for

a) word processing	(56%)
b) spreadsheets	(6%)
c) database applications	(13%)
d) electronic mail	(6%)
e) presentations	(0%)

f) report generation	(0%)
No response	(19%)

Comments:

Most all is used. (2 comments.)
Varies with department but word processing is used most.
Varies with department.
Most with student records and accounting. (2 comments.)
Most with student records.

14) The next thing staff are likely to learn to do with computers is

a) word processing	(19%)
b) spreadsheets	(19%)
c) database applications	(19%)
d) electronic mail	(19%)
e) presentations	(0%)
f) report generation	(5%)
No response	(19%)

Comments:

All of them used.

15) The use of local area networks in staff computers is

a) significant	(19%)
b) moderate	(6%)
c) starting	(19%)
d) nonexistent	(50%)
No response	(6%)

16) Support for setting up computer software for staff is

a) readily available	(38%)
b) usually available	(38%)
c) somewhat available	(24%)
d) not available	(0%)

Comments:

Overworked support people.
Support for college recommended software but still usually for other software.

17) Within the college/institute, the computer software staff use is

a) standardized	(69%)
b) not standardized	(31%)

Comments:

A few exceptions.
Most use word perfect but a few use microsoft word.
For 2 years now.

18) With word processing software, staff are

a) fluent	(13%)
b) comfortable	(56%)
c) novices	(6%)

d) unfamiliar (6%)
e) widely spread in terms of ability (19%)

Comments:

Most do not have enough expertise to perform efficiently.

19) With spreadsheet software, staff are

a) fluent (0%)
b) comfortable (19%)
c) novices (25%)
d) unfamiliar (25%)
e) widely spread in terms of ability (31%)

Comments:

Little use.

20) With database application software, staff are

a) fluent (0%)
b) comfortable (6%)
c) novices (18%)
d) unfamiliar (38%)
e) widely spread in terms of ability (38%)

21) Is electronic mail available to staff?

a) yes (69%)
b) no (31%)

Comments:

Generally only to computer support staff.

22) The percentage of staff with available electronic mail who use it is

a) 100% (19%)
b) 75% - 99% (24%)
c) 50% - 74% (24%)
d) 25% - 49% (13%)
e) 1% - 24% (13%)
f) 0% (7%)

23) With electronic mail software, staff are

a) fluent (12%)
b) comfortable (25%)
c) novices (25%)
d) unfamiliar (19%)
e) widely spread in terms of ability (19%)

Comments:

Documentation is not available.

24) Staff use electronic mail

a) internally only (18%)
b) externally only (13%)
c) mainly internally but some externally (50%)

d) mainly externally but some internally (6%)
e) none of the above (13%)

25) Staff use electronic mail

a) daily (44%)
b) weekly (19%)
c) monthly (6%)
d) none of the above (25%)
No response (6%)

Comments:

Varied.

26) With presentation software, staff are

a) fluent (6%)
b) comfortable (0%)
c) novices (13%)
d) unfamiliar (56%)
e) widely spread in terms of ability (25%)

27) With report generating software, staff are

a) fluent (0%)
b) comfortable (12%)
c) novices (19%)
d) unfamiliar (50%)
e) widely spread in terms of ability (19%)

Section 4 - STUDENTS

1) These questions pertain to

a) Section 1 - Administrators
b) Section 2 - Instructors
c) Section 3 - Staff
d) Section 4 - Students (100%)
e) Section 5 - Educational technology, hardware, software, training ...
f) Section 6 - Policies

2) The use of computers for students is

a) increasing quickly (50%)
b) increasing moderately (44%)
c) increasing slowly (6%)
d) not increasing (0%)

Comments:

Open labs are full.

3) Students mainly use the following computer platform

a) IBM microcomputers or clone (81%)
b) Apple microcomputers (0%)
c) IBM mainframe or minicomputer (6%)
d) DEC mainframe (0%)
e) other (please specify) (13%)

f) no use (0%)

Comments:

Sun workstations and DEC minicomputers.
Mostly IBM but Macintosh use is increasing. (2 comments.)
Macintosh, Amiga, and Atari.
No alternatives to Macintosh offered.
Computer technology also uses DEC computer.

4) Students use

a) both a mainframe/minicomputer and microcomputer (56%)
b) only a microcomputer (44%)
c) only a mainframe/minicomputer (0%)
d) neither mainframe/minicomputer or microcomputer (0%)

Comments:

Mainframe used for searching remote databases.
Mostly microcomputers. (2 comments.)
College has 2 curriculum minicomputers.

5) The computer hardware that students need to use is

a) readily available (19%)
b) usually available (56%)
c) somewhat available (25%)
d) not available (0%)

Comments:

Scramble labs have peak times. (2 comments.)
There are some line-ups.
Outdated and too few.
Limited to IBM.
Not enough facilities.

6) For each microcomputer available to students there are

a) 1 - 3 students (12%)
b) 4 - 10 students (38%)
c) 11 - 25 students (19%)
d) 26 - 50 students (25%)
e) 51 - 100 students (0%)
f) over 100 students (0%)
No response (6%)

Comments:

Students supply their own.

7) With setting up and adapting computer hardware, students are

a) fluent (0%)
b) comfortable (6%)
c) novices (25%)
d) unfamiliar (25%)
e) widely spread in terms of ability (44%)

Comments:

Not part of the curriculum.
The English department hides DOS from the students.
Not enough DOS training.

8) The next computer platform students will likely learn about or use is

a) IBM microcomputers or clone	(38%)
b) Apple microcomputers	(19%)
c) IBM mainframe or minicomputer	(19%)
d) DEC mainframe	(6%)
e) other (please specify)	(12%)
No response	(6%)

Comments:

Sun workstations.
Sun workstations for searching remote databases.
AS-400.
IBM microcomputers with networking and mainframe connection.
Apple and mainframe.
Big contingent wants access to Macintoshes.

9) Support for setting up hardware for student use is

a) readily available	(19%)
b) usually available	(44%)
c) somewhat available	(25%)
d) not available	(12%)

Comments:

1 for 60 computer facility.
1 for many - overworked.
30 labs set up and maintained with standard hardware and software.

10) Students mainly use computers for

a) word processing	(88%)
b) spreadsheets	(0%)
c) database applications	(0%)
d) electronic mail	(0%)
e) presentations	(0%)
f) report generation	(6%)
No response	(6%)

Comments:

Varies. (2 comments.)
For designing and creative work.
Also autocad.
All but D.
Written assignments.

11) The next thing students are likely to learn to do with computers is

a) word processing	(0%)
b) spreadsheets	(43%)
c) database applications	(13%)

d) electronic mail	(13%)
e) presentations	(13%)
f) report generation	(0%)
No response	(18%)

Comments:

Varies. (2 comments.)
CADD.
Multimedia and authoring. (2 comments.)
GIS applications.

12) The use of local area networks for student computers is

a) significant	(19%)
b) moderate	(12%)
c) starting	(44%)
d) nonexistent	(19%)
No response	(6%)

Comments:

Growing rapidly.
Limited to those enrolled in certain courses.

13) Support for setting up computer software for student use is

a) readily available	(31%)
b) usually available	(44%)
c) somewhat available	(19%)
d) not available	(6%)

Comments:

Depends on the instructor.
Through instructors and proctors.
For those who use computers for course delivery.

14) Within the college/institute, the computer software student use is

a) standardized	(88%)
b) not standardized	(12%)

Comments:

For word processing, spreadsheets, and databases but depends on the program.
Microsoft works is standardized.
Word processing is standardized but there are lots of specialized software packages used.
Not on leading edge.

15) With word processing software, students are

a) fluent	(0%)
b) comfortable	(44%)
c) novices	(19%)
d) unfamiliar	(0%)
e) widely spread in terms of ability	(37%)

Comments:

Widely spread but most unfamiliar.

No skills for reading the manual.

16) With spreadsheet software, students are

a) fluent	(0%)
b) comfortable	(19%)
c) novices	(19%)
d) unfamiliar	(12%)
e) widely spread in terms of ability	(50%)

Comments:

Use Lotus 123.
Most unfamiliar except those in computer and perhaps accounting courses.

17) With database application software, students are

a) fluent	(0%)
b) comfortable	(19%)
c) novices	(12%)
d) unfamiliar	(25%)
e) widely spread in terms of ability	(44%)

Comments:

Most unfamiliar except those in specific courses.

18) Is electronic mail available to students?

a) yes	(44%)
b) no	(50%)
No response	(6%)

Comments:

On network soon.
Growing.
In June 1991.
Only to a few on the mainframe.
Only for computer students.
Only on DEC computer.

19) The percentage of students with available electronic mail who use it is

a) 100%	(6%)
b) 75% - 99%	(0%)
c) 50% - 74%	(13%)
d) 25% - 49%	(13%)
e) 1% - 24%	(37%)
f) 0%	(6%)
No response	(25%)

Comments:

Computer students use it extensively.

20) With electronic mail software, students are

a) fluent	(0%)
b) comfortable	(12%)
c) novices	(6%)

d) unfamiliar	(25%)
e) widely spread in terms of ability	(38%)
No response	(19%)

Comments:

Not available.

21) Students use electronic mail

a) internally only	(19%)
b) externally only	(0%)
c) mainly internally but some externally	(25%)
d) mainly externally but some internally	(19%)
e) none of the above	(31%)
No response	(6%)

Comments:

Both internally and externally equally.

22) Students use electronic mail

a) daily	(12%)
b) weekly	(25%)
c) monthly	(6%)
d) none of the above	(38%)
No response	(19%)

Comments:

Some students.
Varies.
Should be daily.

23) With presentation software, students are

a) fluent	(0%)
b) comfortable	(6%)
c) novices	(25%)
d) unfamiliar	(38%)
e) widely spread in terms of ability	(31%)

Comments:

Just starting.

24) With report generating software, students are

a) fluent	(0%)
b) comfortable	(12%)
c) novices	(19%)
d) unfamiliar	(38%)
e) widely spread in terms of ability	(25%)
No response	(6%)

Comments:

Just for students taking COBOL andRPG.
Some from DBASE III+, First choice, and COBOL.

Section 5 - EDUCATIONAL TECHNOLOGY, HARDWARE, SOFTWARE, TRAINING

1) These questions pertain to

a) Section 1 - Administrators
b) Section 2 - Instructors
c) Section 3 - Staff
d) Section 4 - Students
e) Section 5 - Educational technology, hw, sw, training ... (100%)
f) Section 6 - Policies

2) Are there computers and hardware available for multimedia applications?

a) yes (69%)
b) no (31%)

Comments:

Computers yes, peripherals no.
Requires additional development to be effective.
Future acquisition.
Currently only available through instructional media support service.
While computers are available, they are not dedicated for this purpose, nor are they programmed to do this application.

3) Are software tools available for multimedia application development?

a) yes (56%)
b) no (44%)

Comments:

NATAL
Future acquisition.
Rights may be acquired - tools are accessible but not owned.
Never had a call for such application.

4) Are support people available for multimedia application development?

a) yes (50%)
b) no (50%)

Comments:

Not enough support, now well enough organized to provide adequate support.
Expected in the future.
On a limited basis.
We employ 3 photo arts technicians.

5) How much training is available for faculty wishing to learn about multimedia?

a) a lot (6%)
b) some (25%)
c) very little (44%)
d) none (19%)
Invalid response (6%)

Comments:

It is our intent to increase development time.
As much as would be necessary - media staff are available for this.

6) **Are faculty using computer aided learning/multimedia applications for educational purposes?**

a) often	(12%)
b) sometimes	(32%)
c) rarely	(44%)
d) never	(12%)

Comments:

On a personal preference basis - one of our six academies is using a curriculum development software package.
A small proportion.
Computer aided instruction often, multimedia rarely.
Just starting to.

7) **Are faculty creating computer aided learning/multimedia applications for educational purposes?**

a) often	(6%)
b) sometimes	(31%)
c) rarely	(44%)
d) never	(19%)

Comments:

On a personal preference basis - one of our six academies is using a curriculum development software package.
Computer aided instruction yes, multimedia rarely.
A few have created more than one.
Physics, nursing, and computer science.

8) **Are there incentives (e.g. money, time off) to encourage faculty to create computer aided learning/multimedia or other computer applications for educational purposes?**

a) often	(6%)
b) sometimes	(38%)
c) rarely	(31%)
d) never	(25%)

Comments:

Training opportunity would be the incentive.
Faculty loan agreement for purchase of hardware.
Press established. Computer aided instruction materials author agreement will be marketed by college.
Royalty agreement.
Revision of college rules and regulations on copyright.
Regularly, but the amount is small ($25,000 per annum).
A request before the executive now could change this.

9) **Is electronic conferencing used for educational purposes?**

a) often	(0%)
b) sometimes	(44%)
c) rarely	(25%)
d) never	(31%)

Comments:

Computers in tourism course (available summer 1991) will make extensive use of computer conferencing.
A number of faculty have joined the SFU exchange.

10) Is equipment available for audio teleconferencing?

a) yes (63%)
b) no (37%)

Comments:

We use speaker phones where a group is involved.
All regional centres are fully equipped.

11) Is audio teleconferencing used for educational purposes?

a) often (13%)
b) sometimes (25%)
c) rarely (31%)
d) never (31%)

Comments:

Regular classes in ETC and via small college consortium.

12) Are facilities available for internal closed-circuit videodistribution?

a) yes (44%)
b) no (56%)

Comments:

We anticipate building this into our new facility.
Via VCR's.
Available in only one of the centres.
Future capability in new campus.

13) Is internal closed-circuit video used for educational purposes?

a) often (12%)
b) sometimes (25%)
c) rarely (25%)
d) never (38%)

Comments:

We do, however, have video decks and monitors in all our classrooms.
We use video tapes to a great extent in our training.
Increased application is expected.
It will be on the new campus.

14) Is equipment available for video conferencing (video and graphics over phone lines)?

a) yes (19%)
b) no (81%)

Comments:

We use knowledge network facilities.
Available but rarely used due to the cost.

To date, applications have been on a pilot basis.
It will be on the new campus.

15) Is video conferencing used for educational purposes?

a) often	(0%)
b) sometimes	(19%)
c) rarely	(6%)
d) never	(75%)

Comments:

Our paramedic academy uses the knowledge network 3 to 4 times per year.
This application is expected to increase.

16) Is it possible to receive satellite video reception?

a) yes	(63%)
b) no	(31%)
No response	(6%)

Comments:

Only through a cable feed.
New initiatives are under way.
At only one of the centres.
It will be in our new facility.
It will be in our new campus.

17) Is satellite video used for educational purposes?

a) often	(13%)
b) sometimes	(31%)
c) rarely	(31%)
d) never	(25%)

Comments:

Our paramedic academy uses the knowledge network 3 to 4 times per year.
Facilities have only been recently installed.

18) Are facilities available for producing telecourses?

a) yes	(69%)
b) no	(31%)

Comments:

We do not produce telecourses. We do, however, produce videos and we combine this with the broadcast facilities of the knowledge network.
We do not own a lot of these.
Only at such a rudimentary level that they could hardly be classed as telecourses today.
Full facilities for broadcast purposes.
It will be in our new campus.

19) Are telecourses used for educational purposes?

a) often	(6%)
b) sometimes	(50%)
c) rarely	(19%)
d) never	(25%)

Comments:

Our paramedic academy uses the knowledge network 3 to 4 times per year.
Majority of telecourses are acquired. Local development with focus on marine training.
Over the knowledge network.

20) Is equipment available for audiographics (audio and graphics over phone lines)?

a) yes	(12%)
b) no	(88%)

Comments:

We would use knowledge network equipment and facilities.
We can access it but do not own it.
Requires purchase of software only.

21) Is audiographics used for educational purposes?

a) often	(0%)
b) sometimes	(19%)
c) rarely	(0%)
d) never	(81%)

Comments:

No call for this application.

22) Is support and advice available for any of the above telecommunications applications on campus?

a) yes	(69%)
b) no	(25%)
No response	(6%)

Comments:

Our experience with many of the applications are either limited or theoretical.
In the office of educational telecommunications.
In collaboration with other institutions.

23) The percentage of microcomputers linked to mainframe/minicomputers is

a) 100%	(6%)
b) 75% - 99%	(13%)
c) 50% - 74%	(13%)
d) 25% - 49%	(31%)
e) 1% - 24%	(31%)
f) 0%	(0%)
No response	(6%)

Comments:

We have two networks (in the library and registration offices) plus a mainframe hookup (in the finance office).

24) Support for networking microcomputers is

a) readily available	(50%)
b) usually available	(12%)
c) somewhat available	(26%)
d) not available	(12%)

Comments:

Through commercial vendors.
Varies with local area network.

25) Support for setting up computer hardware is

a) readily available	(63%)
b) usually available	(37%)
c) somewhat available	(0%)
d) not available	(0%)

Comments:

Through commercial vendors.

26) Support for setting up specialized hardware (e.g. satellite communications) is

a) readily available	(25%)
b) usually available	(13%)
c) somewhat available	(31%)
d) not available	(31%)

27) Support for electronic mail is

a) readily available	(69%)
b) usually available	(12%)
c) somewhat available	(0%)
d) not available	(19%)

Comments:

For those linked to the DEC computer.

28) Learning about educational technology in your field is done by

a) books, journals, magazines ...	(25%)
b) computer aided learning/multimedia packages	(0%)
c) continuing education classes	(0%)
d) workshops, seminars, and conferences	(13%)
e) colleagues and peers	(6%)
f) other (please specify)	(43%)
No response	(13%)

Comments:

All of the above. (6 comments.)
On the job training.
Learning is more ad hoc than systematic.
We are hoping to work towards workshops, seminars, and conferences.
A and E.

29) Educational technology in your field is

a) often applied	(31%)
b) sometimes applied	(44%)
c) rarely applied	(13%)
d) never applied	(6%)
No response	(6%)

Comments:

We rely greatly on visual presentation of ideas and information.
Average across departments.

30) Resources for implementing educational technology in your field are

a) often available	(25%)
b) sometimes available	(50%)
c) rarely available	(13%)
d) never available	(6%)
No response	(6%)

Comments:

We don't use many commercially available resources unless there is a need.
Inadequate.

31) Educational technology in your field is

a) very valuable	(38%)
b) quite valuable	(44%)
c) somewhat valuable	(6%)
d) not valuable	(0%)
No response	(12%)

Comments:

We rely greatly on visual presentation of ideas and information.
Valuable if we can take full advantage of it.

32) Opportunities to update knowledge of educational technology are

a) often available	(31%)
b) sometimes available	(50%)
c) rarely available	(13%)
d) never available	(0%)
No response	(6%)

Comments:

Often available due to our location in the Vancouver area.

33) If there was an annual conference or workshop in British Columbia dealing with educational technology, faculty would try to attend

a) often	(56%)
b) sometimes	(31%)
c) rarely	(13%)
d) never	(0%)

Comments:

E.g. PIMA conference, ITVA workshops.
A few would attend very regularly.
Cost would be a factor.

34) The need for a dedicated educational technology facility available primarily for faculty is

a) very high	(19%)
b) high	(38%)

c) low (31%)
d) very low (0%)
e) nonexistent (0%)
No response (12%)

Comments:

Very high but under what terms.
Acutely high.
The need for decentralized expertise among colleges in the system is high.
Currently need is low because of our existing facilities and ready access to facilities which supplement ours.
If, as is planned, our institution moves to Langley, we would require more to be available on campus.
We have one and it is used a lot.

Section 6 - POLICIES

1) These questions pertain to

a) Section 1 - Administrators
b) Section 2 - Instructors
c) Section 3 - Staff
d) Section 4 - Students
e) Section 5 - Educational technology, hardware, software, training ...
f) Section 6 - Policies (100%)

2) Does your college/institute currently have a computing plan?

a) yes (73%)
b) no (27%)

Comments:

It is more a philosophy than a plan.
Has not been updated in 18 months.
We have a training plan for staff and students but not much of an information services plan.
We are currently developing policies for our computing centre.

3) If there is a computing plan, it is being adhered to

a) completely (0%)
b) mostly (54%)
c) somewhat (13%)
d) not at all (0%)
No response (33%)

Comments:

As resources allow.

4) If there is a computing plan, the administrative computing priority is

a) very strong (20%)
b) strong (47%)
c) weak (13%)
d) very weak (0%)
No response (20%)

Comments:

Balanced is a better description.
Administration has been strong in the past and administration is well-equipped.
Implicit in practise - not planned.

5) **If there is a computing plan, the instructional computing priority is**

a) very strong	(20%)
b) strong	(40%)
c) weak	(20%)
d) very weak	(0%)
No response	(20%)

Comments:

Balanced is a better description.
Instructional computing is becoming more important.
Currently under development.

6) **Is there a policy in place to provide technological hardware tools for curriculum related activities?**

a) yes	(40%)
b) no	(53%)
No response	(7%)

Comments:

Policy is too strong and formal. It is accepted practice to provide etc.
Our computing centre has no formal policies.
Nothing formal.
There are a number of support units - learning resources unit, audiovisual services, word processing, department labs, microcomputer labs, and faculty development centres.

7) **Is there a policy in place to provide technological software tools for curriculum related activities?**

a) yes	(47%)
b) no	(53%)

Comments:

Policy is too strong and formal. It is accepted practice to provide etc.
Not formal - implicit in curriculum mandates.
Not formal.

8) **Is there a computer purchase plan to help faculty buy their own computers?**

a) yes	(67%)
b) no	(33%)

Comments:

Through local vendor initiatives.

9) **Can computers be purchased on campus?**

a) yes	(47%)
b) no	(53%)

Comments:

Quarterly apple Macfest.

10) The priority of upgrading/replacing aging technological hardware tools is

) very high	(0%)
b) high	(34%)
c) moderate	(34%)
d) low	(13%)
e) very low	(13%)
f) nonexistent	(6%)

Comments:

Very high but depends totally on available funds.
Depends on how large our annual operating capital grant from the MAETT is every year.
Focus is on creating new labs.

11) Support for repairing hardware is

a) readily available	(67%)
b) usually available	(20%)
c) somewhat available	(13%)
d) not available	(0%)

Comments:

We have just instituted an in-house computing repair service.

12) Upgrading/replacing aging technological hardware tools is

a) done regularly	(33%)
b) done when special funding is available	(60%)
c) not done	(0%)
d) none of the above	(0%)
No response	(7%)

Comments:

A capital replacement plan is under development.
Done slowly.
When broken.

13) Is there a policy in place to provide software tools for curriculum related activities?

a) yes	(50%)
b) no	(50%)

Comments:

Not formal - implicit in curriculum mandates.
Policy is too strong and formal. It is accepted practice to provide etc.
Our computing centre has no formal policies.

14) Can software be purchased on campus?

a) yes	(47%)
b) no	(53%)

Comments:

Only a limited amount.

Student versions only.

15) Is there a policy in place on computer ethics?

a) yes (33%)
b) no (47%)
c) soon (currently being developed) (20%)

Comments:

For students only.
Concerns piracy and duplication.

16) Is there a general promotional effort to educate users in the issues of piracy and duplication?

a) yes (80%)
b) no (13%)
No response (7%)

Comments:

Integrity network in labs prevents piracy.
Posters.
Not formally.

17) Does a group monitor technology changes and report to a planning committee?

a) yes (67%)
b) no (33%)

Comments:

There is a micro computer committee and six computer user groups.
Departments monitor labs while computer resources monitors the mainframe computer.
We are presently setting up such a group.
There is an information systems advisory committee.
There used to be, the idea is being revised.
We have a computer resources advisory committee that was established last year and does this kind of work.
Information services monitors and then recommends purchases.
There is no planning committee outside of information services.

APPENDIX C - COMMENTS FOR LONG ANSWER QUESTIONS

Section 7 - Long Answer Questions

LEGEND:			
B	BCIT	M	Malaspina
CAM	Camosun	N	North Island
CAR	Cariboo	NW	Northwest
CNC	College of New Caledonia	OK	Okanagan
D	Douglas	OLA	Open Learning Agency
E	Emily Carr	P	P.M.T.I.
F	Fraser Valley	S	Selkirk
J	Justice Institute	V	V.C.C.
K	Kwantlen	CAP	Capilano
NL	Northern Lights		

1. **Please describe other uses of educational technology that are being applied in your college/institute.**

B
Presentation Software
V.H.S. tapes of industry are produced by draft and analyzed by students in labs
Computers
Computer simulation
Interactive Videodisc - Fire Management, Health Services
CAI - piping

CAM
Computer aided design and mfg.

CAP
Audio teleconferencing--some writing courses;others planned
Satellite video conference
Telecourses and print/video packages through Media Resources

CNC
UT Programming - Statistical Analysis
CIS Programming, Project Planning, etc.

D
Academic Computing - Instructional Computing
Courseware

E
Computer labs provide support for Telecourses produced by the college in association with the Knowledge Network.

F
Full line of Audio/visual services
CD Rom
Telecom. for interlibrary loans, DB searching
CAI and LAN for ABE
CASE, Powerhouse, dBase IV for CIS

For special needs - talking calculators, FM devices for hearing impaired, text readers for visually impaired, Kurzweil electronic reading machine

N Extensive use of CAL Techniques
Distance learning through Open Learning format

OK Videodisc - Biology
CAL - Nursing, Physics, Comp Sci,, Language Labs

OLA As a supplier of open learning in BC, we use a wide range of ed. tech. media. They include print, audio-cassettes, broadcast television, computer conferencing through MINDLINK, videotape distribution, computer based instruction, audio conferencing.

P LCD proj unit
Proj tv units
Scanner
Simulators

S See #3

V Bruce McLean, Director of Instructional Media Services, desired that it be established that existing technologies be considered. We use radio, television, audio and video cassettes, Language Labs, slide presentations and motion pictures. Printed word has become more effective learning tool due to technologies developed over the past ten years.

2. What applications has your college/institute developed using computer aided learning/multimedia? Which departments have created these?

B We did an initial project years ago to develop interactive
V.H.S. and computers. No funding was granted to develop concept further.
Word processing
CAI - Gasfitting, pressure reducing values
Interactive Videodisc - Fire Management
Interactive Videodisc - Anatomy & Physiology of the Heart (IVD Project)

CAM Tutorials, self-tests, simulations in Biology, Electronics,
Marine Training, Marketing, Nursing, Carpentry, Autobody,
Pipe Fitting, Adult Basic Education, Mathematics.

CAP Logic trainer CAI - Philosophy department
CD-Rom demo disc - Applied Infotec department

CAR Use commercially prepared packages. Use of these is increasing. Due to expertise required to produce "good" CAI, departments do not produce them.

CNC None

D Commerce and Business - Keith Collier
Instructional Media Services
Need Multimedia hardware and software - very expensive.

E Although no courseware per se is currently being developed,

the Outreach Department Telecourse material focuses on the computer as a tool for the artist.

F Created - none

N Computer technology and electronics technician training both feature on-line components/courses prepared and maintained "in house" by the Colt Department.

NW Biology - introducing MS DOS (for end users) and basic concepts in biology (first year UT)

OK Same as question #1

OLA Employee Orientation Package - Hypercard - Human Resources Department.
Construction Estimating - NATAL - Open College OLIAS authoring Language Project - Info Services Department

P None

S See #3

V The Workings of Markets - CAI - W. Behnke King.Edward.Camp.

3. What software tools does your college/institute use for computer aided instruction/Multimedia development?

B TenCORE mainly, some Linkway, some Toolbook, "C," LISP, Prolog
A few commercial programs
WordPerfect 5.1
BCIT resources
P.C. Solve

CAM Authorware, Hypercard, Pathfinder, Learning Support System (CSS)

CAP Authorware, Hypercard, Amigavision (mostly instructional rather than production at this point)

CNC Fire Control System - Forestry
Business Plan Program - Enterprise Development System
"Business Disc"

D Toolbook, Linkway

E Animation - Cyberpaint, Deluxe Paint
Video - "Live," Broadcast Titler
Sound - Future Sound
Photography - Image Studio, Deluxe Photo Lab

F CCC for ABE/ESL
Voice synthesizers, etc., for physically impaired

Business simulation software in Business Department
LAN and WAN simulation software in CIS

M
Toolbook
Hypercard
Guide
Spinnaker Plus
Vidkit

N
Windows 3.0, Showpartner 3.0, Evergreen CAS 3.0, PwRun (Nic Developed Cal Driver), Variety of Graphics/Paint programs and text editors

NW
NATAL

OK
NATAL

OLA
NATAL (abandoned)
Authorware Professional (current)
Hypercard (current)
OLIAS (abandoned)
Media Tracks (current)

P
PC Paintbrush
First Publisher
Scanjet
First Graphics

S
CAI software available in ABE classrooms
Linkway Tutorial on Basic vocabulary survival skills for Transitional Training and ESL
PCGlobe, Peanuts (a math and geometry tutorial)
Expert - animal classification
Several Hyplus (Neil Larsen - MaxThink) hypertext
Black History, History of Middle East, Population Growth,
Review of Hormones, Human Heart and Circulatory System
Basics of Telecommunication
Write On, Hyplus Help
Metaphor - hypertext poem
Flambeaus DOS help, Owl's Guide 3 - environment
ESS - English reference, Dr. DOS

V
SAST (Simulation Authoring System)
Best Course of Action - Macintosh
Hypercard
IBM Storyboard
Harvard Graphics

4. Which departments in your college/institute use computer managed learning/testbanking?

B
Some courses ex law have developed large question banks of multiple choice as well as standard questions. Partially scored on OPSAN

	IBM 286/40m hard drive/dot matrix printer, microtest software
CAM	ABE, Trades Training
CAR	Trades Nursing Resp. Therapics Biology (upgrading) L.T.C.
CNC	Trades Nursing Development Studies Center
D	Nursing Psychology Computer Info Systems C.I.S. Office Administration Faculty Social Studies
F	Trades CIS ABE ASE Business
J	Fire Academy, Paramedic Academy
M	None
N	Computer Technology Electronics Technician Advanced Basic Ed. Office Admin
NW	Trades, Nursing, ABE
OK	Water Quality Technology and others unknown
OLA	None as yet.
P	Nautical
S	Nursing Business Don Buskus Physics Dwayne Hamilton Trac System - Automotive - Al Walker
V	Career Division (Student Tracking)

5. What hardware and software tools does your college/institute use for computer managed learning/testbanking?

B Testbank

CAM L.S.S. (from SIAST, Saskatchewan), Pathfinder

CAR C.M.L. - purchased from Computer Based Training Systems (Calgary), a subsidiary of Campus America.

CNC CML
Camelot

D Specialized Testbanks, Optical Scanning Hardware, Microtest Score II

F IBM compatibles, Apple II E and Macintosh, Soft-vert
Voice Synthesizer, Trac System in Trades, CCC Instructional System

J dBase III, Crosstalk, Score

N Mix of XT and AT (Comp) workstations
Banyan Network

NW Trades - own development of "tools" - sw and
Nursing - op. scan card reader
ABE - Pathfinder/IBM

OK Water Quality Technology uses VAX and PCs

P Hardware - none
Software - Program (Testbank) Exambank

S Networked ATs (trac system - Nelson campus) R-BASE

V Database Programs

6. What does your college/institute use electronic communications for other than electronic mail?

B ISIS, DOBIS
Budgeting, student records, management database
Financial records, purchasing, registrations
Literature searches

CAM Database Searches (library), file transfers (bulletin boards and other colleges) and Micros/Vax Course and Int. Sessions on remote computers

CNC Library - Interlibrary Loan, Information Searches
Bookstore - Purchases
FAID - Report Transfer/Distribution

D E-Mail Main Use
Administrative Computer is off-site

E All college staff/faculty and administration are linked via ASPEN Voice Mail.

F Literature search UBC and other libraries
File Transfers, college BBS,
Uploading 3.5 mm slides for developing

J Database access

N Network Supervision

NW LRC access to UBC library - (inter-library lonar and
FAX transmissions of periodicals from UBC)

OLA Currently using MINDLINK as a computer conferencing system to deliver the computers in Tourism course which is part of the Tourism Supervisory Development Program. Use as both a conferencing system and as a file exchange mechanism for students, tutors, developers and contractors.

P Library
BBS

S Conferencing (Cosy)
Connect PCs to DEC VAX minicomputer
Modem file transfers from BBSs

V At the moment, very little. Many instructors have recently formed SFUX-change and hopefully will use the conferencing capability. There is considerable interest in conducting ERIC searches.

7. How can changes in high school curriculum affect the use of educational technology in your college/institute?

B The starting points of our curriculum. However, it is dependent on total provincial adoption.
Provide computer literate students who will be comfortable in health industry where technology is increasing rapidly
Increased emphasis on grammar and writing skills
Improved computer literacy in schools would free us from the need to teach computer basics.
Students **must** be able to read well in order to comprehend instructions delivered via a computer. Students with poor comprehension use up more instructional time than the computer saves.

CAM By creating a demand for facilities, support, and service which we will probably be hard-pressed to meet.

CAP As high schools become more computer literate, we will be pressured to increase the computer content in our courses and the amount of computer support we provide.

CAR As graduates become more familiar with computer technology in schools, they will demand increased availability of both hardware and software on campuses.

CNC Ongoing development of standard facilities, i.e. evolution and taking advantage of learned skills

D Many elementary and secondary schools have better hardware/software resources than colleges.

E Establish an electronic communication link/network between secondary and post-secondary institutions. Provide basic data processing/computer literacy instruction at the secondary level.

F Promote basic computer literacy

J Higher level demands

M High school grads will soon know more about software applications than most college faculty

N Improvement in computer literacy affects us positively
The reverse, negatively

NW Level of computer literacy of incoming students
Level of knowledge of comp. sci. majors from high school (and/or particular software used for programming courses)

OK Uncertain but a subject of concern

OLA The use of computers and especially modems at home will help us distribute our services more widely. If high schools provide access to computers with modem, both during and after school hours (especially to night (adult) students) we could better use the resources stored in the schools.

8. What are the trends or directions developing in your field in educational technology?

B Videodisc is **main** teaching mode, cooperative **learning**, simulatives
Hands on applications of computer based systems
G.I.S.
We are steering away from computer simulations in favor of a hands on real world, real time approach.

CAM Computers are becoming ubiquitous. Students are becoming more skilled all the time. There is no longer a clearly defined boundary for computer service.

CAP More computer communications techniques will be necessary (e-mail, conferencing, database access)
Use of computers in all instructional departments is increasing (both generic applications and disipline specific ones).

CAR Increased use of CAI to supplement classroom instruction

Interactive video to produce simulated case studies

CNC Computer technology is developing drastically. Pressure on resources as this evolution continues.

D Multimedia, Presentation Tools for Instructors, portable computer, presentation software, color LCD projection unit.

E Trends towards courseware development, exploring Multi-media applications, authoring software, and CD-Rom technologies
Currently exploring the trend towards electronic teaching and learning, and investigating the relationship between new and old technologies

F Interactive Laserdisc
Satellite Teleconferencing
Integration of computers in A/V
Depts for Media Mgmt and Devel.
Computer simulation for clinical
Nursing concepts
Health related index on CD Rom
Technology for disabled
Network existing computers

J Computerized simulations (e.g. simulated emergency response)

M Multimedia

N Improved video resolution and capture capability
Animated video presentation

NW Study trends to support distance education (audio teleconferencing computer conferences, video).
Increasing trends in computer as "tool" in all areas -- integrated with regular curriculum.

OK Increased power of computers, both hardware and software

OLA Computer conferencing and Multimedia are very popular at this time. Fiber optic networking will be of upmost importance to our distance education activities.
Integration of media and compatibility of media will be a constant challenge.

P Efforts are being made to introduce distance learning

S CD Rom - interactive instruction

9. What would improve faculty training/professional development opportunities for learning about educational technology?

B Release time. $ to produce video discs (large amounts)
Sufficient release time after training to develop appropriate applications in curriculum.
Time to attend seminars
Having technology available for trial

	Adequate release time More money for educational technology purchases. If you haven't any, there is no point training faculty.
CAM	A learning/training facility. Time for faculty to take P.D.
CAP	Availability of hardware and software to try and to use is the major improvement needed. Also: time off, more dollars for software, workshops (perhaps provincially organized), contacts/mentors.
CAR	A display of the various tech. available and being used in the college system. Sharing of ideas.
CNC	Additional financial resources to be able to maintain currency
D	Conferences, seminars, workshops, courses, user groups, more training provided for faculty.
E	Contractual arrangements for release/research time. Exploring the relationship between the college and industry.
F	Funds for PD/release time - Note: everyone had this in their answer. A comprehensive course on technology relevant to persons with a disability. More computers for faculty.
J	In-service workshops provided by or made available by ministry
K	They have to get on the treadmill...
M	Computer courses
N	More resources
NW	Tie into K-12 system of regional TECHNOLOGY CENTRES -- action research, P.D. programs, etc. We need direct access to opportunities in the Northwest.
OK	Increased funding Increased opportunity locally
OLA	Government funded training seminars, that would adequately cover release time.
P	Seminars and conferences on products and their uses in class related activities.
S	Better software and high-end machines
V	More money - for release time for (1) instructors familiar with certain technology to give workshops and (2) faculty taking these workshops.

10. What is the difference between the hardware your college/institute has versus what is needed?

B
We do not have hardware at this time.
CCTV fine. Video disc playback in classrooms.
We require faster computers. We are still using XT's.
Money
We need modems, adequate funding
Several thousand dollars, we would ultimately like to see a one student/one p.c. ratio for the last term of our core program.

CAM
We need more. Workstation/student ratio is too low.
Provisions for upgrades and replacement is not adequate.
We should have more Macs for students and don't.

CAP
Enormous--we need more faculty computers, more student computers, more up-to-date dedicated workstations.

CAR
Currently, everyone can have access to the microcomputer.
There is an increase in demand for PCs - both IBM (or clone) and Mac.

CNC
Very out of date, i.e. VAX 780 -- VAX 4000
Technologies 286 -- 386/486 based (use of colour)
General Purpose xt -- 286 or better
Word Processing xt -- 286 or better
Macintosh Plus -- Classic or better

D
The difference is great! Hardware - college needs high-end workstations, powerful 386, 68000 micros, e.g. PS/2 Model 95 Apple MAC SI, IBM RS 6000. Each faculty office should have a PC in it.

E
Unique applications of digital hardware requires constant upgrading based on the visual/aesthetic experience of the students.

F
Diversify PC holdings to include more Apple Macintoshes, more laser printers for DTP, upgrade video production equipment, replace obsolete XTs in labs and offices

J
Systems are PC based -- networking is required

K
Ideally, you'd like to replace/upgrade every few years -- I think this is just a symptom of the revolution we are going through.

M
Large difference

N
There is less of it.

NW
Need **much** more LAN technology, with integrated "open systems" -- no one platform will handle everything.
Also, need **much more** hardware access for students, faculty and staff.

OK
Has - old, too few in number, too low in capability

OLA We are well equipped at this time following a major electronic publishing project's completion. Most of the agency is equipped with Macintosh computers and linked to our central VAX system. Our desktop publishing system is excellent.
Our greatest need in the future will be the installation of a computer network throughout our learning centres in conjunction with the Community College Network.

P Minimal

S We are 90% AT-640kb class machines
5% XT
5% 386sx
Multimedia needs 386/25, 4mb RAM, 150mb HD, colour VGA

V We need more money to purchase the equipment, more space to house it and more resources to support it.

11. What is the difference between the software your college/institute has versus what is needed?

B Depending on #10 above, changes would require adequate software.
Video discs on some topics available. Need a full set for entire curriculum.
The software we need only operates on faster machines.
More database packages are required.

CAM Need D.B.M.S., 4 G.L. language, CASE software, Videotext, graphics, Document Storage/Retrieval software.

CAP Enormous, particularly up-to-date software

CAR Software is readily available and there seems to be few demands for new software this is not met.

CNC Maintain currency. Extremely difficult task and very costly.

D Difficulty of obtaining site licences because of cost.
Availability of good courseware.

E Again, ideas and aesthetics are always in flux at the college. Constant trend to exploit new and existing software.

F Lack of program specific software, i.e. library tech, business, geography, sciences

J Improved SRS,
Up-to-date computerized course design programs

K Again, like hard ware, you have difficulty keeping up -- software is in some ways more difficult because it requires not only hardware but time to learn/apply new capabilities.

M Large

N Locally developed software lags acquisition of improved hardware capability

Commercial software woefully inadequate in a college environment for other than basic educational reqts.

NW Administrative systems not suitable to this size and nature of operation (i.e. SRS/BAS/etc.). All of these need to be more end-user orientital, flexible, easily integrated as the college's info system evolves.

OK Needs Multimedia software

OLA More CBT development software required
Not much else is required

P Minimal

S Multimedia software is not user friendly, fast, or robust enough yet.
Generally, we need more copies of software we have standardized on.

V Undetermined at this time.

12. What word processing package(s) is/are mainly being used on campus? Please indicate if the package is standardized and who the resident expert(s) is/are.

B WordPerfect 5.0/5.1, standardized, Val Plavan, M. Beckett

CAM MS - Word (standardized) Computer Services for expertise
MS - Works (standardized) Computer Services for expertise
XY write — English Department " "
WordPerfect — Office Admin for expertise

CAR WordPerfect 5.0/5.1, Microsoft Word, VAX - EDT. Both are standardized. Taught by S. Lazeroff (Computer Services)

CNC

Standard	Expert
VAX based -- Word II	
Micro PC -- MS - Word, WordPerfect	Computer
Micro MAC -- MS - Word, MS Works	Services

D Standard package - WordPerfect 5.1, admin, staff, faculty, students. Carole Nelson, Systems and Computing.
Brenda Bowes, OADM.

E Microsoft Word - Curriculum - no resident expert.
WordPerfect - Administration - Roland Plessis.

F See Human Resources. WordPerfect 5.1 site license for all computers at all campuses.

J WordPerfect 5.1, standardized across J.I., resident experts: Karen Lai, Barbara Hunter

K Uniplex - Unix-based -- used mainly administratively/staff.

Microsoft Works - standardized for faculty/PC use supported by Systems and Computing Department

M WordPerfect 5.1 - standard in all labs and offices - no resident expert

N WordPerfect 5.0
(Also AMI PRO 1.2, and Word 5.0)
Software expertise resides in Colt.

NW MS DOS -- WordPerfect -- Anne Marie Markel
Mac -- MS Word -- Lynn Perrin

OK WordPerfect - standardized
No idea who the experts are

OLA Word - standard - many qualified people on staff
WordPerfect
MS Works

P First Choice, standardized

S WordPerfect 5.1 - Linda Bolechowski

V WordPerfect
MS Word
MS Works

13. What spreadsheet package(s) is/are mainly being used on campus? Please indicate if the package is standardized and who the resident expert(s) is/are.

B Lotus 1-2-3, standardized, Peter Simon

CAM MS - Works (standardized) — Computer Services for expertise
Excel — Paul Merner
Lotus 1-2-3 — Business Computing

CAR Excel, Lotus 1-2-3, Digicalc (VAX). Taught by Computer Services

CNC Lotus 1-2-3 ver 2.2; standard; Computer Services

D Lotus, VP Planner Plus, Supercalc, Excel, Quattro Pro
Ray Yu - CIS Instructor. Andy Morrison - OADM

E Lotus 1-2-3
VP Planner

F Lotus 1-2-3, VP Planner, negotiating a site license for Quattro Pro.

J Lotus 1-2-3, Quattro-Pro, standardized across J.I., John Laverock

K Uniplex -- again for admin/staff
MS Works

Supported by Systems and Computing Department

M Lotus 1-2-3 as easy as Quatro Pro - no standard yet - no expert

N Excel
Lotus 1-2-3

NW MS DOS -- Lotus 1-2-3 -- Brian Loptsin and Anne Marie Markel
Mac -- Excel -- Gary Morrison

OK Lotus 1-2-3 - standardized - is there an expert?

OLA Excel
MS Works - no standards here yet - excel is encouraged
DigiCalc (VAX)

P First Choice - Lotus 1-2-3

S 123 2.01 - Jim Knecht
123 2.2 - Jim Knecht
Quattro Pro - Cathy Mercer

V Lotus
Excel
MS Works

14. What database package(s) is/are mainly being used on campus? Please indicate if the package is standardized and who the resident expert(s) is/are.

B dBase III+/IV, not standardized, K. Inkster, J. Anderson

CAM MS - Works (standardized) Computer Services for expertise
dBase IV Business Computing
dBase III+
Paradox
Foxpro
Oracle (PC)

CAR SPSS

CNC dBase IV; not standard; none

D dBase IV 1.1 - standardized
John Blackwell, C.I.S.

E dBase II on DEC Equipment

F dBase, rBase, Asksam, PC file

J dBase 3, standardized across J.I., Karen Lai

K Oracle - Supported by Systems and Computing Department

M dBase III
dBase IV
no standard, no expert

N dBase III+

NW MS DOS - dBase III+ - Jane Stone and others who are computer professionals have some facility with this package

OK dBase, SuperCalc - main standard is dBase. Looking at Oracle. Also use Sybase for instructional use.

OLA Double Helix - Open College standard - Kelly Meechan and Colleen Ferrante
MS Works
Powerplay

P ACCPAC, dBase IV

S dBase III + - Jim Knecht
WordPerfect Notebook - Linda Bolechowski
dBase IV 1.1 - Dave Williams

V dBase III +
ASKSAM - W. Behnke) at present limited use
Testbank - W. Behnke)

15. What electronic mail system(s) is/are mainly being used on campus? Please indicate if the system is standardized and who the resident expert(s) is/are.

B PROFS, standardized, Michelle Beckett

CAM VMS Mail Computer Services
PROFS Computer Services
PCMail with VMS Computer Services
EAN Darrell Wick
MX Computer Services

CAR VAX Mail, EAN --- W. Cole is the expert

CNC EAN on VAX system; standard; Computer Services

D WordPerfect's Library - standardized
Procomm
Marsh Price
Geoff Campbell - Systems and Computing

E Envoy - Roland Plessis, Systems Manager
Data Pac

F VAX Mail, EAN, Envoy, News BBS System for the VAX

J	Procom, C-Net, not standardized, John Laverock
K	EAN, supported by Systems and Computing Department
M	EAN, VMS Mail - both standard - Malcolm Dunnet, expert
N	E-Mail Banyan Vines VMS/UNIX Mail
OK	VMS-Mail, Ean - standard. Experts are Rob Entwistle, Dave Goodall.
OLA	VAX E-Mail - standard - Dennis Kong EAN MINDLINK
P	None
S	EAN (VAX) - Dick Wolff MAIL (VAX) - Dick Wolff
V	SFU xchange

16. What presentation package(s) is/are mainly being used on campus? Please indicate if the package is standardized and who the resident expert(s) is/are.

B	Presently investigating P.C. solve. B. Shearif. R. Taylor
CAM	Really none of significance.
CNC	Harvard Graphics, non standard, no experts Pagemaker, standard, IMS
D	Powerpoint, DrawPerfect, Harvard Graphics. Mark Coumont, Bob Browne, John Blackwell
F	Harvard Graphics, PC Paint/Slideshow
J	Harvard Graphics, Corel Draw, not standardized, Karen Lai
K	Harvard Graphics - main user is John Bowman, Div. Ping and Research
M	DrawPerfect Freelance Plus no standard Iris Churchur - expert
N	Showpartner Autodesk Animator

OLA	FX Showpartner Persuasion - somewhat of a standard - no resident expert
P	First Publisher First Graphics PC Paintbrush
S	DrawPerfect 1.1 - Dick Wolff Harvard Graphics 2.0 - Garth Collins
V	Hypercard

17. What report generation package(s) is/are mainly being used on campus? Please indicate if the package is standardized and who the resident expert(s) is/are.

B	FOCUS, standardized, Murray Smith WordPerfect, R. Taylor. 8822 dBase, PC Solve, Microsoft Exel, several faculty are interested, none is an expert. First choice, Patrick Mulldoon.	
CAM	SPSS Datatrieve SQL	Computer Services and Paul Merner Computer Services Computer Services
CNC	None	
D	dBase IV 1.1, John Blackwell	
E	Data Train Vax based report generation	
F	Datatrieve, dBase	
J	dBase, standardized across J.I., Karen Lai	
M	Datatrieve Malcolm Dunnet - expert	
N	Datatrieve, yes, Information Services	
OLA	I have no information on this type of software. It is likely stored on our VAX and used primarily by our administrative department.	
P	First Choice	
S	Student records (VAX) - Malaspina library system Financial records (VAX) - Brandon library system Financial aide (VAX) Facilities Management (VAX)	

18. Briefly describe the procedure for ordering software. For example, is it all done by a purchasing department, what price limits need approval, and is there a check for standardization.

B Std SW: Lotus, WP, DOS, done through purchasing
Non Std SW: Mgr U.H., checks compatibility on HW, try to keep to major products.
Assoc. Dean, Dean

CAM Most (but not petty cash purchases) go through Purchasing Depart. No standardization procedures. Pricing depends only on money in budget.

CAR All software ordered by Computing Services.

CNC Our procedure is in the process of review.
All requests processed by Computer Services, to Purchasing, Receiving, Library for cataloging, Computer Services for distribution and installation.

D Problem area, yes, Computer Systems Department and Purchasing Department, yes.

F Software purchases of over $200.00 must be authorized by the Computer Services Advisory Committee. There is a list of approved software. Program specific and general software may be approved for purchase without the responsibility for support.

J Done by each department. No price limit external to each division, check for standardization on mainstream software done at Information System Committee

K All ordered by Technical Services branch of Library.
Dollar limit check not enforced, no standardization checks.

M All software is approved by Instructional Computing and is checked for standardization.

N All software purchasing must be approved at the Director level

NW Ordered through Manager, Program Support and Development, for curriculum related.
Ordered through Computer Resource Management Committee for other.

OK Must be approved by Dean. May be delayed by purchasing.
Need approval at all levels. No standardization.

OLA All software purchases for desktop publishing are purchased in bulk by the Electronic Publishing Committee. All subsequent purchases are sent through purchasing, approved by Information Services and then installed by them.
Price limits are established by project managers, as all subsequent purchases are made from project budgets -- as required.

P Recommendations by staff to a six man computer committee who ensure standardization and prevent duplication.

S 95% done by Computer Centre
5% by department, but approved by Comp. Centre
Each department head signs form

V Software is ordered by the Purchasing Department.
$50.00 + needs approval. There is very little concern with standardization at the moment.

19. What is being done to prevent software piracy?

B Integrity Network System, warning labels/posters

CAM Notices on college computers and software
Approved policy
Enforcement
Good attitudes amongst staff
On-going education and reminders

CAP Heavily used applications are purchased by our students
We support relatively little software
Increasingly, software is netware based and protected
We maintain a central list of licenses
We maximize use of public domain softare

CAR Loading packages on Hard Drive with use of menu system
Warning labels indicating the consequences if piracy is discovered
Obtaining site-licenses for software that is widely used

CNC Published communications
Copywrite laws, notices, magazine articles
Classroom lectures
Published college policies
Word of mouth communications

D All labs are networked with Novell which provides software protection, passwords, read only status. All PCs (Hard Drives) are protected from piracy by "Integrity" (Hard Drive Security System). Students, staff, faculty made aware of policy and ethical standards.

E Encryption on Local Area Networks
Verbal "Policy" statements on stand alone systems

F A committee is in the process of developing a comprehensive computer ethics policy.
Computer labs are monitored at all times.

J Nothing

K "Integrity" is being installed on many h.d. equipped PCs.

M Policy
Notices in labs
Any found on hard drives are marked and department head is asked to remove them
Networking helps prevent

N Education on legal implications.

NW Strong college policy -- does not permit non-licensed use of software. Administered by Manager, P.S.D.

OK Nothing.

OLA The Information Services Department rigorously checks and maintains every computer in the Agency. Software purchased is logged. Periodic checks are made. A strong policy is in effect; supported by administration and the employers of the Agency.

P Notice - warnings on PC. All machines are routinely reformated -- some software is being protected by key locks

S Looking into networking labs
We install software w/o all drivers
Students sign a statement against piracy

V Each computer user must sign a computer user's agreement -- students, faculty and support staff alike
Hard Disks are protected by "Integrity"
There are serious consequences for a person guilty of above.

20. Please fill the following chart in as completely as possible. This chart will help in setting up a "Human Resources" database.
(See Appendix E - Human Resources Database)

APPENDIX D - LISTING OF OPTICAL SCANNER RESULTS

The original scanned data is on file with the original report at the SCOET office. Requests for it in either OPSCAN format or Lotus 1-2-3 format may be made to the following address:

SCOET
c/o Centre for Cirriculum and Professional Development
Fifth Floor, 1483 Douglas Street
Victoria, B.C.
V8W 3K4

APPENDIX E - EXPERTISE DATABASE REPORT

Site	Surname	First name	Department	Phone	Electronic Mail Address	Ed Tech Expertise
BCIT	Belyk	Diane	Nursing	432-5280		Computer Committee
BCIT	Cresswell	Seonog	Spec. Nursing	432-4106	LNNS9126@bcit.bc.ca	Computer Committee
BCIT	Fenrich	Peter	Interactive-Video	432-8817	fnrp6438@bcit.bc.ca	Multimedia
BCIT	Fried	Lyn	Program Head	432-8444	PROFS	CAI
BCIT	Mulldoon	Patrick	Electronics Tech.	432-8223	mllp5851@bcit.bc.ca	Testbanks,Electronics subject matter
BCIT	Nowak	Tom	Interactive-Video	432-8412	FNWAT135@bcit.bc.ca	Videodisc
BCIT	Richards	Griff	Interactive-Video	432-8412	RCHG5818@bcit.bc.ca	Multimedia
BCIT	Strang	R.	Renewable Resource	432-8270	SRAR5615@bcit.bc.ca	Renewable Resources
CAM	Barker	David	C.S.		barker@camosun.bc.ca	UNIX
CAM	Buck	Martin	A.B.E		buck@camosun.bc.ca	Pathfinder
CAM	Cooke	Iain	C.B.E	370-3639	cooke@camosun.bc.ca	Computer Based Education,Mac,Authoring
CAM	Hemus	Fred	English		hemus@instr.camosun.bc.ca	XYWRITE
CAM	Macauley	Andrew	Sys. Dev.		macauley@camosun.bc.ca	DATATRIEVE
CAM	Merner	Paul	Inst. Res.		merner@camosun.bc.ca	SPSS,Excel
CAM	Moore	Rodger	Carpentry		moore@camosun.bc.ca	L.S.S.
CAM	Plante	Mike	C.S.	370-3066	plante@camosun.bc.ca	VAX/VMS,Networks
CAM	Pooni	Balder	Man Tech.		pooni@camosun.bc.ca	CAD/CAM
CAM	Southern	Dave	Computer Services	370-3065	southern@camosun	VAX,Micros,NETS
CAM	Stephenson	Deborah	C.S.		stephenson@camosun.bc.ca	Word,Works
CAP	Allan	Mike	Computer Support	986-1911		UNIX networking
CAP	Battersby	Mark	Philosophy	986-1911	battersby@cc.sfu.ca	general, non-traditional applications
CAP	Bentley	Ted	Mathematics	986-1911		math training videos, math CA
CAP	Bizzocchi	Jim	Distance Education	984-4996	userQBQB@cc.sfu.ca	distance education,instructional design
CAP	Blaney	Diane	Office Admin	986-1911		office & business applications
CAP	Blitstein	Gerry	Applied Infotec	986-1911		multimedia, MAC applications
CAP	Brooks	John	Achievement Centre	986-1911		computer literacy
CAP	Campbell	Bawn	Business Mangmt.	986-1911		MAC-IBM interfacing
CAP	Carter	Tony	Business Mngmt.	986-1911		Databases
CAP	Fahlman-Reid	Melanie	English	986-1911		ESL applications
CAP	Fitz-Earle	Malcolm	Biology	986-1911		biology applications
CAP	Freeman	Mike	Physics			systems, HP, UNIX, fractals

Site	Surname	First name	Department	Phone	Electronic Mail Address	Ed Tech Expertise
CAP	Gallagher	Steve	Computer Support	986-1911		systems, general
CAP	Gilbert	Reid	English	986-1911		English applications
CAP	Hodgson	Pat	ABE	986-1911		computers and disabled
CAP	Ibaraki	Steve	Business Mngmt.	986-1911		networking, microcomputer appliations
CAP	Jest	Lynn	Office Admin	986-1911		office & business applications
CAP	Kellington	Peter	Television Lab	984-4946		video production
CAP	Kilian	Crawford	Communications	986-1911	kilian@cc.sfu.ca	audio conferencing, computer communications
CAP	Lee	Greg	Career Vocational	986-1911		systems,general applications
CAP	Longworth	Richard	Business Mngmt.			systems design and analysis
CAP	Moore	John	Media Resources	986-1911	a687@Mindlink.uucp	dtp,computer graphics, multimedia, communication., instructional design
CAP	Tait	Doug	Art	986-1911		DTP, documentation
CAP	Verner	Bob	Mathematics	986-1911		math training videos
CAP	Walker	Bob	Computer Support	986-1911		systems, general
CAP	Watkiss	Chris	Computer Science	986-1911		programming languages
CAP	Wu	Lawrence	Applied Infotech	986-1911		MAC applications
CAR	Cole	W.	Info & Facilities	828-5322	wesley@cariboo.bc.ca	Electronic Mail
CAR	Lazeroff	S	Info & Facilities	828-5326	sharon@cariboo.bc.ca	Word Processing,Spread Sheets
CAR	Murray	J	Info & Facilities	828-5418	murray@cariboo.bc.ca	Testbanking
DC	Allen	Barbara	C.I.S.	527-5247	@douglas.bc.ca;s=$FACBARBA	Assembler for PC,Applications Software
DC	Blackwell	John	C.I.S	527-5443	usercpyx@ubc.mtsg	Presentation Tools, Instructional Computing
DC	Cuomont	Mark	Computing	527-5330		Apple,Desktop Publishing,Mac
DC	Girard	Jean-Loui	Computer Science	527-5233	@douglas.bc.ca;s=$FCFJOHNG	TurboPascal 5.5,Computer Science
DC	Greathouse	Susan	Nursing	527-5180		Nursing,Courseware, Interactive Video
DC	Karleen	Darryl	Computing	527-5332		LANS,PC Technical Support
DC	Landon	Bruce	Psychology	527-5249	@douglas.bc.ca;s=$BRUCEL	S.P.S.S.,MYSTAT
DC	Nelson	Carole	Computing	527-5332	@douglas.bc.ca;s=$$CAROLE	WordPerfect Training
DC	Price	Marsh	Computing	527-5334	@douglas.bc.ca;s=$$MARSH	LANS,Administrative Computing

College and Institute Educational Technology Expertise

Site	Surname	First name	Department	Phone	Electronic Mail Address	Ed Tech Expertise
DC	Shebib	Bob	Community Services	527-5139	@douglas.bc.ca;s=$SSABOBS	Instructional Computing
DC	Yu	Ray	C.I.S.	527-5455		Spreadsheets, Database, Computerized Accounting
ECCA	Agrios	Michael	A/V	844-3826		AV,Multimedia
ECCA	Barron	Ron	A/V Comp.	844-3828		Microcomputers,Electronics
ECCA	Chamberlain	Ken	Lib.	844-3835		Microcomputers
ECCA	Lee-Nova	Gary	Fdn. Fine Arts	844-2848	a1432@MindLink.uucp	Microcomputers
ECCA	Vance	Dennis	Animation	844-2865		Microcomputers
FVC	Bate	Barbara		792-2415		CCC at the Literary level
FVC	Brown	Joan	Health Sciences	792-0025	not at present	Minimal at present
FVC	Brown	Cornet	ASE	853-4341		Disabled Students
FVC	Bucks	Greg	Computing	853-7441		Computerized accounting, other business management systems
FVC	Dean	J.	OC	853-2464		VP Planner,Bedford
FVC	Dragani	Noreen	LIBIT	853-7441	dragani@fvc.bc.ca	Library applications, CD Rom installations
FVC	Garibay	Dorine		853-4238		CCC for ESL
FVC	Gibson	Janet		792-2445		CCC in Math,English
FVC	Guidera	Elaigh	Computing	853-7441	eguidera@fvc.bc.ca	Microcomputers,programming
FVC	Hall	Janice		853-4363		CCC
FVC	Heyman	Richard	IMS	853-4333	heyman@fvc.bc.ca	Video Shooting,Video Editing
FVC	Howman	Cynthia	Health Sciences	Loc 2467	not at present	Admin & Faculty (Advanced systems knowledge)
FVC	Isaac	Kim	LIBIT	853-7441	isaac@fvc.bc.ca	Library Application
FVC	Jeffries	Duncan	Computing	853-7441		Microcomputers, Novell, Networks, expert systems
FVC	Karlsen	Gary	IMS	853-4334	karlsen@fvc.bc.ca	Video Prodn.,Comp. Graphics, Instructional Design, Media
FVC	Kensi	M	OC	853-4228		VP Planner,Bedford
FVC	Ling	Ben	Computing	853-7441	ling@fvc.bc.ca	Microcomputers,PC hardware applications
FVC	Loerke	Chris	IMS	853-4332		Electronics Repair
FVC	Nosaty	Diane	IMS	853-2470	nosaty@fvc.bc.ca	Photography,Computer Graphics

College and Institute Educational Technology Expertise

Site	Surname	First name	Department	Phone	Electronic Mail Address	Ed Tech Expertise
FVC	OBrien	Patrick	Computing	853-7441	obrien@fvc.bc.ca	Microcomputers, dBase, Continuing Education
FVC	Rusk	K.	OC	853-7441	rusk@fvc.bc.ca	VP Planner,Bedford
FVC	Saunders	Mary		853-4224		CCC
FVC	Sifton	Pat	LIBIT	853-7441	sifton@fvc.bc.ca, Envoy:P.Sifton	Library applications
FVC	Solvey	Bertha		792-2475		CCC
FVC	Welsh	Wayne	Computing	853-7441	welsh@fvc.bc.ca	Microcomputers, dBase, Powerhouse, VAX,VMS
FVC	Whiteride	B.	OC	853-4228		WordPerfect
JSTI	Caverock	John	Corrections	222-2103		
JSTI	Denpier	Paul	Inst. Services	222-2180		
JSTI	Hunter	Barbara	Paramedic	222-2115		
JSTI	Lai	Karen	Fire	222-7134		
JSTI	McIntyre	Ross	PEP	222-2112		
JSTI	Merck	Anita	Police	222-2254		
KWA	Arboteda	Len	Physics Lab.	599-2212	lena@envy.kwantlen.bc.ca	Graphical Analysis, Prec. Timer, SmartPully, SChamp
KWA	Benton	Elaine	Office Admin	599-2536		WordPerfect, dBase, Lotus, ACCPAC, Medical Billing
KWA	Boni	Mary	Fashion	599-2551	maryb@envy.kwantlen.bc.ca	Accumark (pattern grading, marking)
KWA	Bowman	John	Planning & Res.	599-2064	johnb@envy.kwantlen.bc.ca	SPSS
KWA	Capan	Gunar	Ind. Drafting	599-2945	gunar@envy.kwantlen.bc.ca	CADD
KWA	Dobrowolsky	Rob	Cont. Educ.	599-2125	robd@envy.kwantlen.bc.ca	Mobile computer lab (laptops)
KWA	Evans	Dave	CBS	599-2169	dave@envy.kwantlen.bc.ca	CBS
KWA	Fisher	Gordon	Accounting	599-2507	gordon@envy.kwantlen.bc.ca	C,Pascal,COBOL
KWA	Fleming	Woo	CIS	599-2952	fleming@envy.kwantlen.bc.ca	CIS
KWA	Hutcheon	Darryl	Technology	599-2949	darryl@envy.kwantlen.bc.ca	(Network) Derive, Spice, GPSS, WP5.1, TenCORE
KWA	Johnson	Ron	Mathematics	599-2198	ronj@envy.kwantlen.bc.ca	Pagemaker, Expressionist, Theorist, Mac
KWA	Kaderali	Salim	Biology	599-2562	salimk@envy.kwantlen.bc.ca	Diet Balancer, Bird Breed, dBase III
KWA	Keister	Ron	Graphics	599-2938		Prof. Page & Prof. Draw, Amiga

Site	Surname	First name	Department	Phone	Electronic Mail Address	Ed Tech Expertise
KWA	Kirkey	Jennifer	Physics Inst.	599-2201	jennifer@envy.kwantlen.bc.ca	VPPlanner, dBase III, WordPerfect
KWA	Lassigne	Claude	Chemistry	599-2197	claude@envy.kwantlen.bc.ca	Chemtext
KWA	Laughy	Bette	Mass Communic.	599-2573		Pagemaker,DTP
KWA	Liu	Phyllis	Library	599-2591	bucat@jade.kwantlen.bc.ca	Automated Library system
KWA	Ludtke	Frank	Graphics	599-2939	frank@envy.kwantlen.bc.ca	Pagemaker,DTP
KWA	Macadam	Andrew	Inst. Media Ser.	599-2115	andrew@envy.kwantlen.bc.ca	Recording & Editing, graphics, photography, B&W dev
KWA	Moffat	Tony	Drafting	599-2561	tony@envy.kwantlen.bc.ca	Autocad,CAD/CAM
KWA	Papas	Laurie	E.C.E.	599-2571		Word on Mac
KWA	Patterson	John	Registrar	599-2018	john@envy.kwantlen.bc.ca	WordPerfect,PlanPerfect,dBase III+
KWA	Rathie	Bob	Physics Inst.	599-2556		WordPerfect 5.1,VPPlanner
KWA	Richardson	Stu	Graphics	599-2941		Adobe Illustrator
KWA	Richmond	Doug	Auto Apprentice	599-2910		Maccareas (on-board automotive diagnostics)
KWA	Schindel	Merv	Graphics	599-2942	mervin@envy.kwantlen.bc.ca	Pagemaker, Mac & PC, Microsoft Word
KWA	Stacey	Brian	Inst. Media Ser.	599-2113	brian@envy.kwantlen.bc.ca	Recording & Editing, graphics, photography, B&W dev
KWA	Taylor	David	Chemistry	599-2197	david@envy.kwantlen.bc.ca	Chemtext
KWA	Verster	Jan	Mathematics	599-2550	janv@envy.kwantlen.bc.ca	WordPerfect to create math tests
KWA	Witun	Al	Trades & Voc.	599-2944		Comp. Hardware Specialist
MAL	Bigras	Tony	Computer Support	753-3245	bigras@envy.kwantlen.bc.ca	Software,Hardware Troubleshooting
MAL	Hammond-Kaarremaa	Liz	Instr. Computing	753-3245	lizhk@mala.bc.ca	VMS Mail,KERMIT,Ventura,DOS
MAL	Peon	Dominique	Computer Support	753-3245	peon@mala.bc.ca	Hardware
NIC	Balbon	Albert	Colt	339-8922	Colt	PWRUN/CAS
NIC	Carlile	Gord	Colt	339-8922	Colt	varied
NIC	McArthur	Eva	Colt	339-8923	McArthur	CAS
NIC	McPhail	Robert	Colt	339-8921	McPhail	PWRUN/CAS/ELC
NIC	Nicklin	John	Colt	339-8920	Nicklin	Varied
NWC	Hartig	Norbert	Open Learning		hartig@nwcc.bc.ca	Video production,Communication technology
NWC	Kerbey	Norma	Terrace Centre		kerby@nwcc.bc.ca	CAI Authoring

College and Institute Educational Technology Expertise

Site	Surname	First name	Department	Phone	Electronic Mail Address	Ed Tech Expertise
NWC	Morrison	Gary	Terrace Centre		morrison@nwcc.bc.ca	Interactive Video,general computer application
NWC	Stone	Jim	Terrace Centre		jstone@nwcc.bc.ca	Computing Science
OKN	Berger	Mike	AV			
OKN	Boersma	Kees	AV			
OKN	Brigham	Jay	Engl			Publishing
OKN	Brown	Gary	Water Quality		gbrown@instr.okanagan.bc.ca	Testing
OKN	Entwistle	Rob	Computer Service		entwistle@admin.okanagan.bc.ca	Networks
OKN	Goodall	Dave	Computer Service		goodall@admin.okanagan.bc.ca	Networks
OKN	Harling	John	Biology			Videodisc
OKN	Harris	Dave	Computer Service		harris@admin.okanagan.bc.ca	Hardware
OKN	Mitchell	CJ	Computer Service		cjmitchell@admin.okanagan.bc.ca	Hardware
OKN	Northcott	Dave	BuAd	862-5629		Business Apps
OKN	Pidwirny	Mike	Geog			Mac
OKN	Sault	Dan	Printroom		sault@admin.okanagan.bc.ca	DTP
OKN	Smith	Bob	Computer Service		rsmith@okanagan.bc.ca	Hardware repair
OLA	Bates	Tony	President's Office	660-0222	tonyb@ola.bc.ca	Distance Education expert, Dist. Ed. Delivery Tech
OLA	Bischoff	Arthur	Info. Services	660-2167	arthurb@ola.bc.ca	VAX/Mac, Networking
OLA	Black	Don	President's Office	660-0222	donb@ola.bc.ca	Database research applications
OLA	Copeland	Lynn	Elec. Library Pr	660-2179	lynn@ola.bc.ca	On-line data bases, Library on-line services
OLA	Cronk	Doug	Open University	660-9410	doug@ola.bc.ca	DTP (Quarkexpress/Pagemaker) wide range
OLA	Daniels	Christine	Open College	660-2219	christined@ola.bc.ca	MSDOS applications,dBase IV,etc.
OLA	Ellacott	Dave	Info. Services	660-0575	davee@ola.bc.ca	Mac software/hardware, Distance Education
OLA	Gilmore	Dave	Info Services	660-0580	daveg@ola.bc.ca	Distance Education, using VAX
OLA	Golding	Chris	Open College	660-9408	chris@ola.bc.ca	Computer Conferencing,DTP (Wide)
OLA	Izen	Michael	Disc.TrainingNet	660-2050	michaeli@ola.bc.ca	Computer Conferencing, on-line database

College and Institute Educational Technology Expertise

Site	Surname	First name	Department	Phone	Electronic Mail Address	Ed Tech Expertise
OLA	Kong	Dennis	Info Services	660-0565	dennisk@ola.bc.ca	Wide range of knowledge of Mac appl/hardware
OLA	Laks	Alex	Open University	660-2216	alexl@ola.bc.ca	DTP
OLA	Mitchell	Betty	Knowledge Network	660-5070	bettym@ola.bc.ca	Multimedia,Audio-Graphics, Teleconferencing
OLA	Motut	Bernie	Knowledge Network	660-2054		Ed. Television Production/Direction
OLA	Schultz	Werner	Access Ability	660-7753	werners@ola.bc.ca	Microcomputer programming, Special Needs Students
OLA	Van Soest	Cathy	Knowledge Network	663-5071	cathyv@ola.bc.ca	Teleconferencing
PMTI	Clifford	M	Bursar	985-0622		ACCPAC
PMTI	Davidson	M	Eng	985-0622		CADKEY
PMTI	Goeller	R	Naut	985-0622		Presentation Graphics
PMTI	Hayden	E	Eng	985-0622		Electric Equ & Applications
PMTI	Hesp	R	SMO	985-0622		Curriculum Development
PMTI	Marsh	G	Naut	985-0622		Programming
PMTI	Shepherd	B	Eng	985-0622		Control & Data Aquisition Systems, Hardware
VCC	Behnke	Walter	Bus. Computing	875-6111	wbehnke@mtsg.ubc.ca	Authoring,Courseware
VCC	Boxler	Judy	C. Sc.	324-5511	usergara@mtsg.ubc.ca	C. Sc.
VCC	Kashini	Habib	CST	324-5511	usercqsf@mtsg.ubc.ca	CST
VCC	McElroy	Anne		875-6111	uservccl@mtsg.ubc.ca	Instructional Computing

APPENDIX F - DISK FILE LISTING

DOS DISK CONTENTS

Filename:	Description:
Policy.DAT	Data in OPSCAN format
Admin.DAT	Data in OPSCAN format
Student.DAT	Data in OPSCAN format
Instruct.DAT	Data in OPSCAN format
Staff.DAT	Data in OPSCAN format
EdTech.DAT	Data in OPSCAN format
Survey.DOC	This report in Word Perfect format
Survey.ASC	This report in ASCII format
SCOET.	Long answer responses in Word Perfect format
InvTerm.91	Terms of Reference iin Word Perfect format
Expert.DBF	The database of expertise in DBASE IV format
HumanRes.FRM	Report form for the expertise data (DBASE IV)
HumanRes.FRG	Report form for the expertise data (DBASE IV)
HumanRes.FRO	Report form for the expertise data (DBASE IV)
SCOETALL.WK1	The OPSCAN data in Lotus 1-2-3 (v.2) format

MACINTOSH DISK CONTENTS:

Filename:	Description:
Questionnaire_with_data	Questionnaire with summarized responses (MS Word)

APPENDIX G - GLOSSARY

Audiographics	Audiographics is a technology that combines audio, text and graphics/video capabilities. Most audiographic systems are computer based and use telephone lines to connect for real time two way and multi-point communication.
BCCEC	British Columbia Computer Educators Committee
CAI/CAL	Computer Assisted Instruction/Learning - Instruction or learning where the role of computers is limited to the enhancement of either process.
CBI/CBL	Computer Based Instruction/Learning - Instruction or learning where the role of computers encompasses more complex functions such as understanding concepts and their application to problem solving.
CBE	Computer Based Education - Each of the above four concepts deal with varying degrees of computer use and either focus on the instructional aspect or the learning aspect of computer applications. Computer Based Education encompasses all four.
CCCC	Computing & Communication Coordinators Committee
CITEC	Colleges & Institutes Technology in Education Committee.
CML	Computer Managed Learning - The use of computers to manage the entire learning process.
delivery	The presentation of material. Generally referred to in the context of media used to present instructional material, such as audio, video, or the application of a specific type of computer software.
Educational Technology	Communications, media, computer or other electronic technologies as the *subject* of educational programs, or, as *applied* in the development, delivery and administration of educational programs, or as *used* by students to facilitate or enhance their education.
MIS	Management Information System - A computer based system of data organization and management to provide information to managers to assist them in the decision making process.
Multi-media	The combination of more than one element of educational technology. Typically this refers to the combination of text, graphics and audio produced with various devices but monitored and/or controlled at a single control centre, such as a computer.
PIMA	Pacific Instructional Media Association
platform	The specific combination and configuration of hardware and software used in the delivery of a computer application. Can be as general as a description of the operating system or as specific as a listing of the devices brand names and model numbers involved.

presentation software	Software designed to facilitate the computer presentation of text and graphics. i.e. Harvard Graphics. (When audio is incorporated it is usually referred to as multimedia.)
report generation software	Software designed to organize data and produce reports in a specified format from raw data.
standardized hardware/software	Local agreement to purchase and use the same hardware and/or software in order to avoid problems of incompatibility.
SCOET	Standing Committee on Educational Technology
telecourse	Telecourses can be credit or non-credit and are usually accompanied by print materials and tutorial support.
testbanking	An abbreviated form of test item banking whereby test items are stored in a computer to be used in the design of tests, quizzes and exams. Testbanking refers specifically to the storage of tests.